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UNIVERSITY OF MARYLAND

OFFICIAL PUBLICATION

Vol. 30 FEBRUARY 1933 No. 2

Catalogue Number

1933-1934

COLLEGE PARK, MARYLAND

D

CALENDAR FOR 1933, 1934, 1935

1933

JULY

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1934

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Table of Contents

UNIVERSITY CALANDAR

1933-1934

COLLEGE PARK

First Semester

1933.		
Sept. 18-19	Monday, Tuesday	Registration for freshmen.
Sept. 20	Wednesday	Upper classmen complete registration.
Sept. 21	Thursday, 8:20 a. m.	Instruction for first semester begins.
Sept. 27	Wednesday	Last day to change registration or to file schedule card without fine.
Nov. 30	Thursday	Thanksgiving Day. Holiday.
Dec. 21	Thursday, 12:10 p. m.	Christmas Recess begins.
1934.		
Jan. 3	Wednesday, 8:20 a. m.	Christmas Recess ends.
Jan. 17-24	Wednesday-Wednesday	First semester examinations.

Second Semester

Jan. 10-16	Wednesday-Tuesday	Registration for second semester.
Jan. 29	Monday	Last day to complete registration for second semester without payment of late registration fee.
Jan. 30	Tuesday, 8:20 a. m.	Instruction for second semester begins.
Feb. 5	Monday	Last day to change registration or to file schedule card without fine.
Feb. 22	Thursday	Washington's Birthday. Holiday.
March 28-April 4	Wednesday, 12:10 p. m.-Wednesday, 8:20 a. m.	Easter Recess.
May 16-22	Wednesday-Tuesday	Registration for first semester, 1934-1935.
May 23-31	Wednesday-Thursday	Second Semester examinations for seniors.
May 26-June 4	Saturday-Monday	Second Semester examinations.
May 30	Wednesday	Memorial Day. Holiday.
June 3	Sunday, 11 a. m.	Baccalaureate Sermon.
June 5	Tuesday	Class Day.
June 6	Wednesday	Commencement.

Summer Term

June 18-23	Monday-Saturday	Rural Women's Short Course.
June 27	Wednesday	Summer School begins.
Aug. 7	Tuesday	Summer School ends.
Aug. 9-14	Thursday-Tuesday	Boys' and Girls' Club Week.

BALTIMORE (PROFESSIONAL SCHOOLS)

First Semester

1933.		
September 15	Friday	*Registration for evening students (LAW).
September 18	Monday	Instruction begins with the first scheduled period (LAW—Evening).
September 22	Friday	*Registration for first- and second-year students (DENTISTRY, MEDICINE).
September 23	Saturday	*Registration for all other students (DENTISTRY, MEDICINE).
September 25	Monday	Instruction begins with the first scheduled period (DENTISTRY, MEDICINE).
September 28	Thursday	*Registration for first- and second-year students (PHARMACY).
September 29	Friday	*Registration for all other students (PHARMACY).
September 29	Friday	*Registration for day students (LAW).
October 2	Monday	Instruction begins with the first scheduled period (LAW—Day—PHARMACY).
November 30	Thursday	Thanksgiving Day. Holiday.
December 20	Wednesday	Christmas recess begins after the last scheduled period (ALL SCHOOLS).
1934.		
January 2	Tuesday	Instruction resumed with the first scheduled period (ALL SCHOOLS).
January 27	Saturday	First semester ends after the last scheduled period (DENTISTRY, MEDICINE).
February 3	Saturday	First semester ends after the last scheduled period (LAW—Day, Evening — PHARMACY).

Second Semester

January 29	Monday	*Registration for first- and second-year students (DENTISTRY, MEDICINE).
January 30	Tuesday	*Registration for all other students (DENTISTRY, MEDICINE).
January 30	Tuesday	Instruction begins with the first scheduled period for first- and second year students (DENTISTRY, MEDICINE).
January 31	Wednesday	Instruction begins with the first scheduled period for all other students (DENTISTRY, MEDICINE).
February 5	Monday	*Registration for all students (LAW), and first- and second-year students (PHARMACY).
February 6	Tuesday	*Registration for all other students (PHARMACY).
February 6	Tuesday	Instruction begins with the first scheduled period for day students (LAW), and first- and second-year students (PHARMACY).
February 7	Wednesday	Instruction begins with the first scheduled period for evening students (LAW), and third- and fourth-year students (PHARMACY).
February 22	Thursday	Washington's Birthday. Holiday.
March 29	Thursday	Easter recess begins after the last scheduled period (ALL SCHOOLS).
April 3	Tuesday	Instruction resumed with the first scheduled period (ALL SCHOOLS).
June 6	Wednesday	Commencement.

* A student who neglects or fails to register prior to or within the day or days specified for his or her school will be called upon to pay a fine of five dollars. The last day of registration with fine added to regular fees is Saturday at noon of the week in which instruction begins following the specified registration period. (This rule may be waived only upon the written recommendation of the dean.)

* The offices of the registrar and comptroller are open daily, not including Saturday, from 9:00 a. m. to 5:00 p. m., and on Saturday from 9:00 a. m. to 12:30 p. m. On Saturday, September 23, 1933, the offices will remain open until 5:00 p. m.

Advance registration is encouraged.

BOARD OF REGENTS

SAMUEL M. SHOEMAKER, Chairman 1933-1942
Eccleston, Baltimore County

JOHN M. DENNIS, Treasurer 1932-1941
Union Trust Co., Baltimore

WILLIAM P. COLE, JR. 1931-1940
Towson, Baltimore County

JOHN E. RAINE 1930-1939
1200 St. Paul Street, Baltimore

CHARLES C. GELDER 1929-1938
Princess Anne, Somerset County

W. W. SKINNER, Secretary 1927-1936
Kensington, Montgomery County

E. BROOKE LEE (Appointed 1927) 1926-1935
Silver Spring, Montgomery County

HENRY HOLZAPFEL, JR. 1925-1934
Hagerstown, Washington County

GEORGE M. SHRIVER 1928-1933
Old Court Road, Baltimore

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SAMUEL M. SHOEMAKER, Chairman

WILLIAM P. COLE, JR. — E. BROOKE LEE
GEORGE M. SHRIVER — JOHN M. DENNIS

UNIVERSITY AND EDUCATIONAL WORK

WILLIAM P. COLE, JR., Chairman

E. BROOKE LEE — W. W. SKINNER

EXPERIMENT STATION AND INVESTIGATIONAL WORK

E. BROOKE LEE, Chairman

W. W. SKINNER — HENRY HOLZAPFEL, JR.

EXTENSION AND DEMONSTRATION WORK

GEORGE M. SHRIVER, Chairman

E. BROOKE LEE — JOHN E. RAINE

INSPECTION AND CONTROL WORK

JOHN M. DENNIS, Chairman

HENRY HOLZAPFEL, JR. — CHARLES C. GELDER

OFFICERS OF ADMINISTRATION

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H. C. BYRD, B.S., Vice-President; Director of Athletics.

H. J. PATTERSON, D.Sc., Director of the Agricultural Experiment Station; Dean of the College of Agriculture.

T. B. SYMONS, M.S., D.Agr., Director of the Extension Service.

A. N. JOHNSON, S.B., D. Eng., Dean of the College of Engineering.

T. H. TALIAFERRO, C.E., Ph.D., Dean of the College of Arts and Sciences.

J. M. H. ROWLAND, M.D., Dean of the School of Medicine.

HENRY D. HARLAN, LL.D., Dean Emeritus of the School of Law.

ROGER HOWELL, A.B., LL.B., Ph.D., Dean of the School of Law.

E. FRANK KELLY, Phar.D., Advisory Dean of the School of Pharmacy.

ANDREW G. DUMEZ, Ph.D., Dean of the School of Pharmacy.

T. O. HEATWOLE, M.D., D.D.S., Secretary of the Baltimore Schools.

J. BEN ROBINSON, D.D.S., Dean of the School of Dentistry.

W. S. SMALL, Ph.D., Dean of the College of Education.

M. MARIE MOUNT, M.A., Dean of the College of Home Economics.

C. O. APPLEMAN, Ph.D., Dean of the Graduate School.

ADELE H. STAMP, M.A., Dean of Women.

ALVAN C. GILLEM, JR., Major Inf. (D. O. L.), Professor of Military Science and Tactics.

MAUDE F. MCKENNEY, Financial Secretary.

W. M. HILLEGEIST, Registrar.

ALMA H. PREINKERT, M.A., Assistant Registrar.

LEONARD HAYS, M.D., University Physician.

H. L. CRISP, M.M.E., Superintendent of Buildings.

T. A. HUTTON, A.B., Purchasing Agent and Manager of Students' Supply Store.

GRACE BARNES, B.S., B.L.S., Librarian (College Park).

OFFICERS OF INSTRUCTION

For the Year 1932-1933.

At College Park

PROFESSORS

C. O. APPLEMAN, Ph.D., Professor of Botany and Plant Physiology, Dean of the Graduate School.

HAYES BAKER-CROTHERS, Ph.D., Professor of History and Political Science.

GRACE BARNES, B.S., B.L.S., Librarian.

F. W. BESLEY, Ph.D., Professor of Farm Forestry, State Forester.

L. B. BROUGHTON, Ph.D., Professor of Chemistry, State Chemist, Chairman of the Pre-Medical Committee.

W. H. BROWN, Ph.D., Professor of Economics and Sociology.

O. C. BRUCE, M.S., Professor of Soil Technology.

B. E. CARMICHAEL, M.S., Professor of Animal Husbandry.

R. W. CARPENTER, A.B., LL.B., Professor of Agricultural Engineering.

E. N. CORY, Ph.D., Professor of Entomology, State Entomologist.

H. F. COTTERMAN, Ph.D., Professor of Agricultural Education and Rural Sociology.

MYRON CREESE, B.S., E.E., Professor of Electrical Engineering.

S. H. DEVAULT, Ph.D., Professor of Agricultural Economics.

NATHAN L. DRAKE, Ph.D., Professor of Organic Chemistry.

C. G. EICHLIN, A.B., M.S., Professor of Physics.

ALVAN C. GILLEM, JR., Major Inf. (D.O.L.), Professor of Military Science and Tactics.

HARRY GWINNER, M.E., Professor of Engineering Mathematics.

MALCOLM HARING, Ph.D., Professor of Physical Chemistry.

H. C. HOUSE, Ph.D., Professor of English and English Literature.

A. N. JOHNSON, S.B., D.Eng., Professor of Highway Engineering, Director of Engineering Research, Dean of the College of Engineering.

W. B. KEMP, Ph.D., Professor of Genetics and Agronomy, Assistant Dean of the College of Agriculture.

B. T. LELAND, B.S., M.A., Professor of Trade and Industrial Education.

EDGAR F. LONG., Ph.D., Professor of Education.

C. L. MACKERT, M.A., Professor of Physical Education for Men.

H. B. MCDONNELL, M.S., M.D., Professor of Agricultural Chemistry.

FRIEDA M. MCFARLAND, M.A., Professor of Textiles and Clothing.

EDNA B. MCNAUGHTON, M.A., Professor of Home Economics Education.

DEVOE MEADE, Ph.D., Professor of Animal and Dairy Husbandry.

J. E. METZGER, B.S., M.A., Professor of Agronomy and Assistant Director of the Experiment Station.

K. J. MORRIS, A.M., Administrative Coordinator of Practice Teaching.

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GEO. D. QUIGLEY, B.S.	Associate

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ALBERT WHITE, B.S.	Superintendent

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PAUL A. RAPER, B.S.		Assistant in Poultry Certification
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†C. E. TEMPLE, M.A.		Specialist in Plant Pathology
*A. F. VIERHELLER, M.S.		Specialist in Horticulture
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Queen Anne's	*E. W. GRUBB, B.S.	Centerville.
St. Mary's	*G. F. WATHEN	Loveville.
Somerset	*C. Z. KELLER, B.S.	Princess Anne.
Talbot	*R. S. BROWN, B.S.	Easton.
Washington	*M. D. MOORE, M.S.	Hagerstown.
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(For the Year 1932-1933)

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Associates

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LOUIS E. KAYNE, D.D.S., Instructor in Physiological Chemistry.
BENJAMIN H. KLOTZ, M.D., Instructor in Practical Anatomy.
M. KOPPLEMAN, M.D., Instructor in Gastro-Enterology.
MARIE KOVNER, M.D., Instructor in Pediatrics.
K. B. LEGGE, M.D., Instructor in Genito-Urinary Diseases.
J. J. LEYKO, M.D., Instructor in Surgery.
WILLIAM F. MARTIN, D.D.S., Instructor in Clinical Orthodontia.
WILLIAM MICHEL, M.D., Instructor in Medicine.
C. PAUL MILLER, D.D.S., Instructor in Clinical Prosthetic Dentistry.
A. C. MONNINGER, M.D., Instructor in Dermatology.
SAMUEL MORRISON, M.D., Instructor in Gastro-Enterology.
MAYO B. MOTT, D.D.S., Instructor in Clinical Operative Dentistry.
RUTH MUSSER, B. A., M.S., Instructor in Pharmacology.
JOSEPH T. NELSON, JR., D.D.S., Instructor in Clinical Pedodontia.
ERNEST B. NUTTALL, D.D.S., Instructor in Ceramics.
F. S. OREM, M.D., Instructor in Pediatrics.
THOMAS O'ROURK, M.D., Instructor in Diseases of the Nose and Throat.
FRANK, A. PACIENZA, M.D., Instructor in Refraction.
ARTHUR C. PARSONS, A.M., Instructor in Modern Languages.
GRACE PEARSON, R.N., Instructor in Social Service.
J. A. F. PFEIFFER, M.D., Instructor in Bacteriology.
GEORGE J. PHILLIPS, D.D.S., Instructor in Prosthetic Technics.
MELVIN A. PITTMAN, M.S., Instructor in Physics.
SAMUEL P. PLATT, Instructor in Technical Drawing.
JOSEPH POKORNEY, M.D., Instructor in Histology.
KYRLE W. PREIS, D.D.S., Instructor in Clinical Othodontia.
J. THOMAS PYLES, M.A., Instructor in English.
JAMES E. PYOTT, D.D.S., Instructor in Prosthetic Technics.
H. HEWELL ROSEBERRY, M.A., Instructor in Physics.
H. S. RUBENSTEIN, M.D., B.S. in Phar., Instructor in Anatomy and Assistant in Medicine.
NATHAN SCHEER, D.D.S. Instructor in Clinical Pedodontia.
WILLIAM SCHUMAN, M.D., Instructor in Practical Anatomy.
HENRY SHEPPARD, M.D., Instructor in Medicine.
ELIZABETH B. SHERMAN, A.B., M.D., Instructor in Pediatrics.
FRANK J. SLAMA, Ph.G., M.S., Instructor in Botany.
HENRY C. SMITH, M.D., Instructor in Medicine.
KARL J. STEINMILLER, A. B., M.D., Instructor in Surgery.
WILLIAM A. STRAUSS, M.D., Instructor in Medicine.
ROBERT B. TOWILL, D.D.S., Instructor in Clinical Operative Dentistry.
M. G. TULL, M.D., Instructor in Hygiene and Public Health.
W. W. WALKER, M.D., Instructor in Surgery.
GRANT E. WARD, A.B, M.D., Instructor in Surgery.
HARRY WASSERMAN, M.D., Instructor in Dermatology.
B. SARGENT WELLS, D.D.S., Instructor in Dental Technics.

JOHN W. WOLF, D.D.S., Instructor in Clinical Periodontia.
L. EDWARD WOJNAROWSKI, D.D.S., Instructor in Clinical Prosthetic Dentistry.
HELEN WRIGHT, R. N., Instructor in Nursing.
GEORGE H. YEAGER, M.D., Instructor in Anesthesia.

Assistants

MAURICE J. ABRAMS, M.D., Assistant in Pathology.
CONRAD B. ACTON, M. D., Assistant in Pathology.
JAMES G. ARNOLD, JR., B.S., M.D., Fellow in Neurological Surgery.
HUGH A. BAILEY, M. D., Assistant in Surgery.
WILLIAM B. BAKER, Ph.G., B.S. in Phar., Assistant in Pharmacy.
MARGARET B. BALLARD, M.D., Assistant in Obstetrics.
NATHANIEL BECK, M.D., Assistant in Medicine.
J. G. BENESUNES, M.D., Assistant in Orthopaedic Surgery.
CARL BENSON, M.D., Assistant in Medicine.
A. V. BUCHNESS, M.D., Assistant in Surgery.
J. HOWARD BURNS, M.D., Assistant in Medicine.
M. PAUL BYERLY, M.D., Assistant in Pediatrics.
RACHEL L. CARSON, B.A., Assistant in Zoology.
H. T. COLLENBERG, M.D., Assistant in Genito-Urinary Diseases.
J. H. COLLINSON, M.D., Assistant in Genito-Urinary Diseases.
MARIE OLGA COX, R.N., Night Supervisor.
SAMUEL H. CULVER, M.D., Assistant in Surgery.
GUSTAV EDWARD CWALINA, Ph.G., B.S. in Phar., Assistant in Pharmaceutical Chemistry.
E. S. EDLAVITCH, M.D., Assistant in Gynecology and Obstetrics.
WILLIAM EMRICH, M.D., Assistant in Genito-Urinary Surgery.
S. C. FELDMAN, M.D., Assistant in Pediatrics.
MORRIS FINE, M.D., Assistant in Pediatrics.
NOEL E. FOSS, B.S. in Phar., H. A. B. Dunning Research Fellow, Assistant in Pharmacy.
ARTHUR McC. GIBSON, B.S., Assistant in Chemistry.
J. WILLIS GUYTON, M.D., Assistant in Surgery.
E. P. H. HARRISON, A.B., M.D., Assistant in Obstetrics.
BERTHA HOFFMAN, R. N., Assistant in Nursing, Supervisor of Wards.
Z. V. HOOPER, M.D., Assistant in Gastro-Enterology.
WILLIAM H. HUNT, Ph.G., B.S. in Phar., Assistant in Bacteriology.
CASIMER T. ICHNIOWSKI, Ph.G., B.S. in Phar., Assistant in Pharmacology.
MARION LEE JACOBS, Ph.G., M.S., Assistant in Botany.
ROBERT W. JOHNSON, M.D., Assistant in Pathology and Surgery.
F. H. KALER, A.B., A.M., Assistant in English.
CLYDE F. KARNS, M.D., Assistant in Surgery.
H. C. KNAPP, M.D., Assistant in Genito-Urinary Diseases.
H. E. LEVIN, M.D., Assistant in Bacteriology.
LUTHER E. LITTLE, M.D., Assistant in Surgery and Anatomy.

L. U. LUMPKIN, M.D., Assistant in Surgery.
L. LAVAN MANCHEY, Ph.G., M.S., Assistant in Chemistry.
J. BOWERS MANSDORFER, M.D., Assistant in Pediatrics.
I. H. MAGERITS, M.D., Assistant in Orthopaedic Surgery.
H. B. MCELWAIN, M.D., Assistant in Surgery.
BENJAMIN MILLER, M.D., Assistant in Pediatrics.
BIRCKHEAD MCGOWAN, M.D., Assistant in Diseases of the Nose and Throat.
MEYER MILLER, M.D., Assistant in Gastro-Enterology.
DWIGHT MOHR, M.D., Assistant in Surgery.
W. K. MORRILL, Ph.D., Assistant in Mathematics.
FRANK K. MORRIS, A.B., M.D., Assistant in Anatomy and Surgery.
JAMES W. NELSON, M.D., Assistant in Histology.
F. O'BRIEN, B.S., Assistant in Zoology.
JOHN A. O'CONNOR, M.D., Assistant in Surgery.
J. G. ONNEN, M.D., Assistant in Surgery.
ELIZABETH PAINTER, A.B., Assistant in Physiology.
A. J. PRAHL, A.M., Assistant in Modern Languages.
WILLIAM ARTHUR PURDUM, Ph.G., B.S. in Phar., Assistant in Pharmacy.
WILLIAM G. QUEEN, M.D., Assistant in Pediatrics.
H. E. REIFSCHNEIDER, M.D., Assistant in Surgery.
BENJAMIN S. RICH, M.D., Assistant in Otology.
C. VICTOR RICHARDS, M.D., Assistant in Gastro-Enterology.
BERTRAN S. ROBERTS, Ph.G., B.S. in Phar., Assistant in Pharmacology.
JOSEPH ROSENBLATT, M.D., Assistant in Pediatrics.
JOHN G. RUNKLE, M.D., Assistant in Ophthalmology.
HARRY A. RUTLEDGE, M.D., Assistant in Pediatrics.
A. SCAGNETTI, M.D., Assistant in Medicine.
PAUL SCHENKER, M.D., Assistant in Surgery.
WM. J. SCHMITZ, M.D., Assistant in Pediatrics.
EMANUEL V. SHULMAN, Ph. G., M.S., Assistant in Botany.
E. V. TEAGARDEN, M.D., Assistant in Pediatrics.
T. J. TOUGHEY, M.D., Assistant in Surgery.
RUTH C. VANDEN BOSCHE, B.S., Assistant in Biological Chemistry.
F. S. WAESCHE, M.D., Assistant in Medicine.
S. KENDIG WALLACE, M.D., Assistant in Pediatrics.
W. H. WOODY, M.D., Assistant in Medicine.
THOMAS GORSUCH WRIGHT, Ph.G., B.S. in Phar., Assistant in Pharmacy.
MAX MORTON ZERVITZ, Ph.G., B.S., in Phar., Assistant in Chemistry.

FACULTY COMMITTEES

At Baltimore

LIBRARY

(Medicine) Doctors Lockard, Wylie, and Winslow; (Dentistry) Doctors Gaver, Aisenberg, and Hardy; (Pharmacy) Dean Du Mez, Messrs. Jenkins, Plitt, and Thompson; (Law) Messrs. Casner and Strahorn.

The Faculty Councils of the Baltimore Schools are included in the descriptive statements of the respective schools in Section II.

The Faculty Committees of the Baltimore schools are given in the separate announcements issued by the several schools.

SECTION I

General Information

HISTORICAL STATEMENT

The history of the present University of Maryland, before the merger in 1920, is the history of two institutions: the old University of Maryland in Baltimore and the Maryland State College (formerly Maryland Agricultural College) in College Park.

The beginning of this history was in 1807, when a charter was granted to the College of Medicine of Maryland. The first class was graduated in 1810. A permanent home was established in 1814-1815 by the erection of the building at Lombard and Greene Streets in Baltimore, the oldest structure in America devoted to medical teaching. Here was founded one of the first medical libraries (and the first medical school library) in the United States. In 1812 the General Assembly of Maryland authorized the College of Medicine of Maryland to "annex or constitute faculties of divinity, law, and arts and sciences," and by the same act declared that the "colleges or faculties thus united should be constituted an university by the name and under the title of the University of Maryland." By authority of this act, steps were taken in 1813 to establish a "faculty of law," and in 1823 a regular school of instruction in law was opened. Subsequently there were added a college of dentistry, a school of pharmacy, and a school of nursing. No significant change in the organization of the University occurred until 1920, more than one hundred years after the original establishment in 1812.

The Maryland State College was chartered in 1856 under the name of the Maryland Agricultural College, the second agricultural college in the Western Hemisphere. For three years the College was under private management. In 1862 the Congress of the United States passed the Land Grant Act. This act granted each State and Territory that should claim its benefits a proportionate amount of unclaimed western lands, in place of scrip, the proceeds from the sale of which should apply under certain conditions to the "endowment, support, and maintenance of at least one college where the leading object shall be, without excluding other scientific and classical studies, and including military tactics, to teach such branches of learning as are related to agriculture and the mechanic arts, in such a manner as the Legislatures of the States may respectively prescribe, in order to promote the liberal and practical education of the industrial classes in the several pursuits and professions of life." This grant was accepted by the General Assembly of Maryland, and the Maryland Agricultural College was named as the beneficiary of the grant. Thus the College became, at least in part, a State institution. In the

fall of 1914 control was taken over entirely by the State. In 1916 the General Assembly granted a new charter to the College, and made it the Maryland State College.

In 1920, by an act of the State Legislature, the University of Maryland was merged with the Maryland State College, and the name of the latter was changed to the University of Maryland.

All the property formerly held by the old University of Maryland was turned over to the Board of Trustees of the Maryland State College, and the name was changed to the Board of Regents of the University of Maryland. Under this charter every power is granted necessary to carry on an institution of higher learning and research. It provides that the University shall receive and administer all existing grants from the Federal Government for education and research and all future grants which may come to the State from this source. The University is co-educational in all its branches.

ADMINISTRATIVE ORGANIZATION

The government of the University is vested by law in a Board of Regents, consisting of nine members appointed by the Governor each for a term of nine years. The administration of the University is vested in the President. The University Senate and the Administrative Council act in an advisory capacity to the President. The composition of these bodies is given elsewhere.

The University organization comprises the following administrative divisions:

College of Agriculture.
Agricultural Experiment Station.
Extension Service.
College of Arts and Sciences.
College of Education.
College of Engineering.
College of Home Economics.
Graduate School.
Summer School.
Department of Military Science and Tactics.
Department of Physical Education and Recreation.
School of Dentistry.
School of Law.
School of Medicine.
School of Nursing.
School of Pharmacy.
The University Hospital.

The University faculty consists of the President, the Deans, the instructional staffs of all the divisions of the University, and the Librarians. The faculty of each college or school constitutes a group which passes on all questions that have exclusive relationship to the division represented. The President is ex-officio a member of each of the faculties.

The organization and activities of the several administrative divisions are described in full in the appropriate chapters of Section II.

THE EASTERN BRANCH

The Eastern Branch of the University of Maryland is located at Princess Anne, Somerset County. It is maintained for the education of negroes in agriculture and the mechanic arts.

LOCATION

The University of Maryland is located at College Park, in Prince George's County, Maryland, on the Baltimore and Ohio Railroad, eight miles from Washington and thirty-two miles from Baltimore. The campus fronts on the Baltimore and Washington Boulevard.

The Baltimore location is at the junction of Lombard and Greene Streets.

EQUIPMENT

The University grounds and buildings in College Park and Baltimore are as follows:

College Park

rolling campus is surmounted by a commanding hill which overlooks a acres. The site is healthful and attractive. The terrain is varied. A broad wide area of surrounding country and insures excellent drainage. Many of the original forest trees remain. Most of the buildings are located on this eminence. The adjacent grounds are laid out attractively in lawns and terraces ornamented with shrubbery and flower beds. Below the brow of the hill, on either side of the Washington-Baltimore Boulevard, lie the drill grounds and the athletic fields. The buildings of the Agricultural Experiment Station face the boulevard. The farm of the College of Agriculture contains about 240 acres, and is devoted to fields, gardens, orchards, vineyards, poultry yards, etc., which are used for experimental purposes and demonstration work in agriculture and horticulture. Recently 270 acres additional have been purchased, about two miles north of the University campus, and this land is devoted especially to research in horticulture.

The water supply and sewage disposal are provided by the Washington and Suburban Sanitary Commission.

Buildings. The buildings comprise about twenty-six individual structures, which provide facilites for the several activities and services carried on at College Park.

Administration and Instruction. This group consists of the following buildings: the Agriculture Building, which accommodates the College of Agriculture, the College of Education, the Agricultural and Home Economics Extension Service, and the Auditorium; the Library Building, which houses the Library and the Executive Offices; Morrill Hall, which accommodates in part the College of Arts and Sciences; the Old Library Building, in which are the offices of the Dean of Women and the English and History

Departments; the Engineering Building, to which a large addition has been made; the Student Center, in which are located the offices of the student publications, the Religious Work Council, and the Maryland Christian Association; the Home Economics Building; the Chemistry Building for instruction in Chemistry and for State work in analysis of feeds, fertilizers, and agricultural lime; the Dairy Building; the New Horticulture Building, which adequately accommodates all class room and laboratory work in that department, and also work in horticultural research for both government and state; the Plant Research Building; the Poultry Buildings; the Central Heating Plant, which takes care of heating for all the campus buildings.

Experiment Station. The offices of the Director of the Experiment Station are in the Agriculture Building, while other smaller buildings house the laboratories for research in soils and for seed testing. Other structures are as follows: an agronomy building; a secondary horticulture building; and barns, farm machinery building, silos, and other structures required in agricultural research. Some of the research is being conducted in the Rossbourg Inn.

Physical Education. This group consists of The Ritchie Coliseum, which provides quarters for all teams, an athletic office, trophy room, rooms for faculty, and visiting team rooms, together with a playing floor and permanent seating arrangements for 4,262 persons; Byrd Stadium, with a permanent seating capacity of 8,000, also furnished with rest rooms for patrons, dressing rooms, and equipment for receiving and transmitting information concerning contests in progress; a Gymnasium, used in part by the Military Department and generally for physical education work; and the Girls' Field House, for all girls' sports. Playing and practice fields and tennis courts are adjacent to the field houses.

Dormitories. Two dormitories, Calvert Hall and Silvester Hall, provide accommodations for 462 men students. Accommodations for 130 women students are provided by Gerneaux Hall and the new Margaret Brent Hall. The Practice House, which for several years was used as a dormitory, has been turned over entirely to the Home Economics Department.

Service Structures. This group includes the Central Heating and Power Plant; the Infirmary, with accommodations for twenty patients, physician's office, operating room, and nursing quarters; Dining Hall and Laundry.

Baltimore

The group of buildings located in the vicinity of Lombard and Greene Streets provides the available housing for the Baltimore division of the University. There are no grounds other than the sites of these buildings. The group comprises the original Medical School building, erected in 1814, the University Hospital, the Central Office building, a new Laboratory building for the Schools of Dentistry and Pharmacy, and a new Law School building. Full descriptions of these parts of the University equipment are found in the chapters devoted to the Baltimore Schools in Section II.

A new University Hospital is now under construction, at the corner of Greene and Redwood streets.

Libraries

Libraries are maintained at both the College Park and the Baltimore branches of the University.

The Library at College Park was transferred in April, 1931, to the new Library Building, which also houses the Executive Offices, Postoffice, and Students' Supply Store. The building is well equipped and well lighted. The reading room on the second floor has seats for 236, and about 4,500 reference books and periodicals on open shelves, the other books being kept in the stack room and three seminar rooms. The stack room is equipped with five tiers of metal stacks and 18 cubicles for advanced study. About 5,500 of the 41,700 books on the campus are shelved in the Engineering, Chemistry, and Entomology Departments, the Graduate School, and other offices.

The Library facilities in Baltimore for the School of Medicine are housed in Davidge Hall; those for the Schools of Dentistry and Pharmacy and the courses in Arts and Sciences are located in the Dentistry and Pharmacy Building; and those for the School of Law are in the new Law Building.

The Libraries, including departmental libraries, contain a total of 76,506 bound volumes, and large collections of unbound journals. In the two central libraries there are approximately 12,000 United States Government documents, unbound reports, and pamphlets.

Through the Inter-library Loan Systems of the Library of Congress, the United States Department of Agriculture, and other Government Libraries in Washington, the University Library is able to supplement its reference material, either by arranging for personal work in these Libraries or by borrowing the books from them.

ENTRANCE

All communications regarding entrance should be addressed to the Registrar, who administers the entrance requirements for all departments of the University. Communications pertaining to entrance to the College Park College should be addressed to the Registrar, University of Maryland, College Park, Maryland; those pertaining to the Baltimore Schools, to the Registrar, Univeristy of Maryland, Lombard and Greene Streets, Baltimore, Maryland.

Age of Applicants. A student who is less than sixteen years of age must have his residence with parents or guardians.

Entrance Preliminaries. Condidates for admission should apply as early as possible to the Registrar for the necessary forms for the transfer of preparatory credits. After these forms have been filled out by the applicant and the high school principal, they should be returned to the Registrar. It is advisable for prospective students to attend to this matter as early as pos-

sible after graduation from high school, in order to make sure that the units offered are sufficient and acceptable. The Registrar is always glad to advise with students, either by correspondence or in person, concerning their preparation. The Registrar sends out a general statement of the procedure for new students to follow after they are duly admitted to the University.

Time of Admission. Applicants for admission should plan to enter at the beginning of the school year in September. It is possible to be admitted to certain Colleges at the beginning of either semester, but students can seldom enter the University to advantage except at the opening of the school year.

Registration. Registration for the first semester, except for new students, takes place at the end of the second semester of the preceding year. Students register for the second semester during the week preceding final examinations of the first semester.

Late Registration. Students who do not complete their registration and classification on regular registration days will be required to pay $3.00 extra on the day following the last registration day and $2.00 for each additional day thereafter until their registration is completed. The maximum fine is $9.00. Students who fail to file course cards in the specified periods in May and January are considered late registrants.

After seven days from the opening of a semester, fees are imposed for a change of registration.

Students who, for any reason, are more than seven days late in registering must secure permission from the instructors in charge for admission to courses. Such permission must be given in writing to the student's dean before course cards will be issued.

Freshman Registration. Registration of freshmen for the first semester will take place Monday of the opening week. All freshmen are expected to register at this time.

Dormitories will be ready for occupancy by freshmen Sunday of the opening week.

A special freshman program is planned covering the time between registration day and the beginning of the instruction schedule, the object of which is to complete the organization of freshmen so that they may begin the regular work promptly and effectively, and to familiarize them with their new surroundings.

Required to Take Military Instruction

All male students, if citizens of the United States, whose bodily condition indicates that they are physically fit to perform military duty are required to take for a period of two years, as a prerequisite to graduation, the military training.

Graduation Requirements for Students Excused from Military Instruction and Physical Education

Students excused from basic military training or physical education with-

out academic credit shall be required to take an equivalent number of credits in other subjects, so that the total credits required for a degree in any college shall not be less than 127 hours. The substitution must be approved by the Dean of the College concerned.

REQUIREMENTS FOR ADMISSION

In general, the requirements for admission to the freshman class are the same as those prescribed for graduation by the approved high schools of Maryland.

High or preparatory school work is evaluated on the basis of "units." A unit represents a year's study in any subject in a secondary school, and constitutes approximately one-fourth of a full year's work. It presupposes a school year of 36 to 40 weeks, recitation periods of from 40 to 60 minutes, and for each study four or five class exercises a week. Two laboratory periods in any science or vocational study are considered as equivalent to one class exercise.

Normally, not more than three units are allowed for four years of English. If, however, a fifth course in English has been taken, an extra unit will be allowed.

Fifteen units, the equivalent of a four-year high school curriculum, are required for admission to all the undergraduate colleges. The additional and special requirements for admission to the professional schools and the Graduate School are given in detail in the chapters devoted to those schools.

Prescribed Units. The following units are required of candidates for admission:

English	3
Algebra to Quadratics	1
*Plane Geometry	1
Science	1
History	1
Total Prescribed	7

In addition to these seven prescribed units, the following are required:

(a) For the *Pre-Medical curriculum:* two years of foreign language.

(b) For the *Engineering and Industrial Chemistry curricula,* it is necessary that the student shall have, in addition to one unit in algebra and one unit in plane geometry, a second unit in algebra, completed, and one-half unit in solid geometry.

Students who do not offer entrance units in algebra, completed, and in solid geometry, may enter the Engineering College, but will be obliged, during the first semester, to take courses which will make up the unit in algebra, completed, and one-half unit in solid geometry, and then they may enter upon the regular freshman mathematics at the beginning of the second semester. The work of the second semester freshman mathematics will be offered these students in the summer school.

(c) For the *Commercial Education curriculum* the following additional units are required: Stenography, 2 units; Typewriting, 1 unit; and Bookkeeping, 1 unit.

***Substitutions for the Plane Geometry Requirement.**

College of Agriculture: With the exception of those curricula which include Trigonometry, the requirement in Plane Geometry may be substituted for, by a second unit of any mathematics, provided the applicant ranks in the upper two-thirds of his high school class.

College of Education—Commercial Education Curriculum.

Plane Geometry is not required for admission.

College of Home Economics: Two units of Algebra may be substituted for one unit of Algebra and one unit of Plane Geometry.

*A condition in Plane Geometry will be permitted if this subject was not offered in the high school attended. This condition must be removed within a year, at the student's expense.

Elective Units. In addition to the prescribed units, a sufficient number of units to make a total of fifteen must be offered from the following elective subjects:

Agriculture	Economics	Mathematics
Astronomy	English	Music
Biology	General Science	Physical Geography
Botany	Geology	Physics
Chemistry	History	Physiology
Civics	Home Economics	Zoology
Commercial Subjects	Industrial Subjects	
Drawing	Language	

METHODS OF ADMISSION

Students are admitted to the University by certificate from approved preparatory schools, by transfer from other colleges or universities, or by examination.

Regulations Governing Admission from Preparatory Schools in Maryland and the District of Columbia. Graduates of Maryland high schools will be admitted in conformity with provisions of the State School Law and the interpretative regulations of the State Board of Education.

(1) *State School Law (Sect. 198). All certificates or diplomas issued to students having completed a course of study in a county high school shall show the group to which said high school belongs, the course taken by the students, and the number of years of instruction given. Any State-supported or State-aided institution of higher learning shall accept as a student any graduate of an approved public high school who is certified by the high school principal as having the qualifications to pursue a course of study in the particular institution of higher learning, said qualifications being based upon standards*

determined, for graduates of the county high schools, by the State Board of Education and for the graduates of the Baltimore City high schools, by the Board of School Commissioners of Baltimore City; or who shows, by passing examinations set by the particular State-aided or State-supported institution of higher learning, that he or she has the qualifications to pursue a course of study in that institution.

(2) *Interpretative Regulations of the State Board of Education.*

(a) *A high school graduate is assured two chances of admission to one of the institutions of higher learning concerned*—EITHER BY BEING RECOMMENDED BY HIS HIGH SCHOOL PRINCIPAL *or* BY PASSING ENTRANCE EXAMINATIONS SET BY THE PARTICULAR INSTITUTION.

(b) *The institution of higher learning is* AT LIBERTY TO ACCEPT ANY GRADUATE *even if he neither qualifies for a recommendation from his high school principal nor passes entrance examinations. Such a graduate, however, is* NOT IN A POSITION TO DEMAND ADMISSION.

(c) *Maryland high school principals shall certify for entrance to any Maryland State-supported or State-aided institution of higher learning any student who has met the published subject-matter requirements of the particular higher institution, and who has made a grade of A or B in at least 60% of the college entrance courses which have been pursued in the last two years of the high school course, and a grade of C or higher in all other college entrance courses which have been pursued during the last two years of the high school course.*

(3) In conformity with the preceding State Law and regulations of the State Board of Education, candidates for admission from Maryland high schools will be classified as "certified" and "non-certified," and high school principals will indicate on the application forms whether the candidate is "certified" or "non-certified." Candidates who are "certified" will be admitted to full regular standing in the freshman class. Candidates who are "non-certified" will be required to take college aptitude tests, the results of which, together with the school grades, will be used as a basis for advising the parent or guardian whether the candidate may expect to succeed in his college curriculum. "Non-certified" candidates who are admitted will be placed on trial, the period of trial to be terminated at the Christmas holidays. Students so admitted who within that period do satisfactory work will be placed on full regular standing at the end of that period; those whose work is doubtful will be placed on probation until the end of the first semester; those whose work indicates failure will be advised to withdraw and their parents so notified.

The same regulations govern the admission of graduates of the District of Columbia high schools.

For admission by certificate the applicant should file with the Registrar of the University as soon as possible after the close of the school year in June a certificate of recommendation made out on the blank form furnished by the University.

Admission by Certificate from Approved Preparatory Schools. A candidate for admission by *certificate* must be a *graduate* of an approved secondary school and be *recommended* by his high school principal. Non-resident applicants must attain the college recommendation grade of their schools, or, if their schools have no college recommendation grade, an average in their high school work at least 10 per cent higher than the lowest passing grade. A candidate who is not certified may appeal to the Committee on Entrance for permission to report at the University for college aptitude tests, which will be used, in addition to preparatory school grades, to determine whether he will be admitted to the University on trial.

The following groups of secondary schools are approved:

(1) *Secondary schools approved by the Maryland State Board of Education.*

(2) *Secondary schools accredited by the Association of Colleges and Secondary Schools of the Middle States.*

(3) *Secondary schools from which students are admitted by certificate to any member of the Association of American Universities.*

(4) *Secondary schools accredited by the Association of Colleges and Preparatory Schools of the Southern States.*

(5) *Secondary schools accredited by the North Central Association of Colleges and Secondary Schools.*

(6) *Secondary schools accredited by the State Universities which are included in the membership of the North Central Association of Colleges and Secondary Schools.*

(7) *Secondary schools approved by the New England College Entrance Certificate Board.*

(8) *High schools and academies registered by the Regents of the University of the State of New York.*

(9) *High and preparatory schools on the accredited list of other State Boards of Education where the requirements for graduation are equivalent to the standard set by the Maryland State Board of Education.*

(10) *State Normal Schools of Maryland and other State Normal Schools having equal requirements for graduation.*

Admission by Transfer from Other Colleges or Universities. A candidate for admission by transfer from another College or University must present evidence that he has maintained a *satisfactory* and *honorable record* at the institution which he has attended, in addition to having satisfied the entrance requirements of the University of Maryland.

For admission by transfer the applicant should file with the Registrar as soon as possible after the close of the school year in June an application for admission made out on the blank form furnished by the University. In addition he should have furnished the Registrar, by the institution he has attended, a complete official transcript of his record, including the secondary school record and a statement of honorable dismissal.

Advanced Standing. Advanced standing is granted to students transferring from institutions of collegiate rank for work completed which is equivalent in extent and quality to the work of the University of Maryland subject to the following provisions:

(1) Regardless of the amount of advanced standing a student may secure, in no case will he be given the baccalaureate degree with less than one year of resident work.

(2) Regardless of the amount of advanced standing a student may secure, in no case will he be given the baccalaureate degree until he has satisfied the full requirements of the curriculum he may elect.

(3) In case the character of a student's work in any subject is such as to create doubt as to the quality of that which preceded it elsewhere, the University reserves the right to revoke at any time any credit allowed.

(4) Credit will not be allowed for more than one-fourth of those courses in which the grade is the lowest passing grade of the college attended.

An applicant may request examination for advanced credit in any subject.

Admission by Examination. Candidates who are not eligible for admission by certificate or by transfer will be admitted upon presenting evidence of having passed the examinations of either the College Entrance Examination Board or the New York Regents' Examinations covering work sufficient to meet the entrance requirements.

The University does not give entrance examinations, but accepts certificates of the College Entrance Examination Board and the New York Regents' Examinations.

The certificate of the College Entrance Examination Board, showing a grade of 60 per cent or higher, will be accepted as satisfying the entrance requirements in a subject. These examinations are held at various points once a year, beginning the third Monday in June. Full information regarding these examinations may be obtained from the Secretary of the College Entrance Examination Board, 431 W. 117th Street, New York City.

Credit will be allowed for examinations conducted by the Regents of the University of the State of New York, showing a grade of 75 per cent or higher.

Unclassified Students. Mature students who have had insufficient preparation to be admitted to any of the four-year curricula may register, with the consent of the Committee on Entrance, for such subjects as they

appear fitted to take. So long, however, as a student remains unclassified, he is ineligible to matriculate for a degree. One may attain regular classification at any time by satisfying the entrance requirements.

HEALTH SERVICE

PHYSICAL EXAMINATIONS

As soon as possible after the opening of the fall semester, as a measure for protecting the health of the student body, all students who enter the undergraduate colleges at College Park are given a physical examination. The examination of the men students is conducted by the College Physician in cooperation with the Military Department. The examination of the women students is conducted by a woman physician especially employed for this purpose in cooperation with the Dean of Women.

RULES GOVERNING MEDICAL SERVICE

1. All students, paying the fixed University charges, who report at the Infirmary will be given medical attention and medicine, except for special conditions, such as major operations, eye, ear, and nose work, etc.

2. Students residing on the campus when too sick to report at the Infirmary in person will be visited in their rooms by the University Physician or nurse. Except in emergencies, such cases of illness should be reported at the usual hours at the Infirmary.

3. Students residing in fraternity, sorority, or boarding houses adjacent to and approved by the University will be treated by the University Physician the same as students living on the campus. When practicable, sickness should be reported before 9 A. M. to the University Physician (phone Greenwood 2170) or Infirmary (Berwyn 80, Branch 12).

4. Students living at home with relatives or guardians shall not be entitled to medical attention in their homes unless injured in some form of University activity.

5. Students residing in fraternity, sorority, or boarding houses may, upon order of the University Physician, be cared for in the Infirmary. Such students shall pay the University an extra charge of $1.00 per day to cover cost of food and service from the Dining Hall.

6. The University Physician will give medical supervision and treatment to employees of the University (but not their families) who work in the kitchen, dining hall, dormitories, and dairy.

7. Members of the faculty, clerical force, and students not paying fixed charges shall *not* be entitled to *free* treatment or medical attention by the University Physician or nurse, or to have the use of the Infirmary.

REGULATIONS, GRADES, DEGREES

REGULATION OF STUDIES

Course Numbers. Courses for undergraduates are designated by numbers

1—99; courses for advanced undergraduates and graduates, by numbers 100—199; and courses for graduates, by numbers 200—299.

The letter following the number of a course indicates the semester in which it is offered; thus, course 1f is offered in the first semester; 1s, in the second semester. The letter "y" indicates a full-year course. The number of hours' credit for each course is indicated by the arabic numeral in parentheses following the title of the course.

Schedule of Courses. A semester time schedule of courses, giving days, hours, and rooms, is issued as a separate pamphlet at the beginning of each semester.

Definition of Credit Unit. The semester hour, which is the unit of credit in the University, is the equivalent of a subject pursued one period a week for one semester. Two or three periods of laboratory or field work are equivalent to one lecture or recitation period. The student is expected to devote three hours a week in classroom or laboratory or in outside preparation for each credit hour in any course.

Number of Hours. The normal student load is from 15 to 19 semester hours, according to curriculum and year. These variations are shown in the appropriate chapters in Section II describing the several divisions of the University. No student may carry either more or less than the prescribed number of hours without specific permission from the Dean of his College.

EXAMINATIONS AND GRADES

Examinations. Examinations are held at the end of each semester in accordance with the official schedule of examinations. Students are required to bring examination books purchased from the Book Store to their final examinations.

No student is exempted from examination in any course with the exception of juniors and seniors in advanced classes of small enrollment where there is more advantage in continuing instruction through the examination period than in giving a final examination. In such cases the final examination may be omitted provided that the examination week schedules of all students involved will permit the usual number of class assembly periods throughout examination week; provided, also, that in each case permission is granted by the faculty of the college involved upon request of the instructor in charge of the class. Meetings of classes in which there is no final examination must be held throughout examination week; and failure to attend any meeting of that class in examination week will be penalized by a three dollar fine.

Grading. The system of grading is uniform in the different departments and divisions of the University.

The following grade symbols are used: A, B, C, D, E, F, and I. The first four, A, B, C, and D, are passing; E, condition; F, failure; I, incomplete.

Grade A denotes superior scholarship; grade B, good scholarship; grade C, fair scholarship; and grade D, passing scholarship.

A student who receives the grade D in more than one-fourth of the credits required for graduation must take additional courses or repeat courses until he has the required number of credits for a degree, three-fourths of which carry a grade above D. A student is not permitted to repeat a course to raise a D grade after a lapse of two years.

In the case of a candidate for a combined degree or of a transfer student with advanced standing, a grade of D will not be recognized for credit towards a degree in more than one-fourth of the credits earned at this institution.

A student with the grade of E is conditioned in the course. The grade of E will be changed by a reexamination during the succeeding semester to D or F. The grade cannot be raised to a grade higher than D. Only one reexamination is permitted, and if a student does not remove the condition at the time scheduled for this reexamination the condition becomes a failure. No student is permitted to take a reexamination to remove a condition within four weeks after the condition has been acquired.

The Mark of I (Incomplete) is exceptional, and is given only to a student whose work has been qualitatively satisfactory and who has a proper excuse for not having completed the requirements of the course. In case of a student whose work has been unsatisfactory and who is absent from the final examination, the grade will be E or F, in accordance with the character of the previous work. In cases where this grade is given the student must complete the work assigned by the instructor by the end of the first semester in which that subject is again offered, or the grade becomes F.

Work of grade D, or of any passing grade, cannot be raised to a higher grade except by repeating the course. A student who repeats a course for which he has received credit for work done at this University or elsewhere, must meet all the requirements of the course, including regular attendance, laboratory work, and examinations. His final grade will be substituted for the grade already recorded, but he will not receive any additional credit for the course.

REPORTS

Written reports of grades are sent by the Registrar to parents or guardians at the close of each semester.

ELIMINATION OF DELINQUENT STUDENTS

The University reserves the right to request at any time the withdrawal of a student who cannot or does not maintain the required standard of scholarship, or whose continuance in the University would be detrimental to his or her health, or to the health of others, or whose conduct is not satisfactory to the authorities of the University. *Students of the last class may be asked to withdraw even though no specific charge be made against them.*

DEGREES AND CERTIFCATES

The University confers the following degrees: Bachelor of Arts, Bachelor of Science, Master of Arts, Master of Science, Doctor of Philosophy, Civil Engineer, Mechanical Engineer, Electrical Engineer, Bachelor of Laws, Doctor of Medicine, Doctor of Dental Surgery, and Bachelor of Science in Pharmacy.

Students in the two-year and three-year curricula are awarded certificates.

The requirements for graduation vary according to the character of work in the different colleges and schools. For full information regarding the requirements for graduation in the several colleges consult the appropriate chapters in Section II.

No baccalaureate degree will be awarded to a student who has had less than one year of resident work in this University. The last thirty credits of any curriculum leading to a baccalaureate degree must be taken in residence at College Park.

At least three-fourths of the credits required for graduation must be earned with grades of A, B, or C.

In the case of a candidate for a combined degree or of a transfer student with advanced standing, a grade of *D* will not be recognized for credit towards a degree in more than one-fourth of the credits earned at this institution.

Each candidate for a degree must file in the Office of the Registrar before March 1st of the year in which he expects to graduate, a formal application for a degree.

EXPENSES

MAKE ALL CHECKS PAYABLE TO THE UNIVERSITY OF MARYLAND FOR THE EXACT AMOUNT OF THE SEMESTER CHARGES.

In order to reduce the cost of operation, all fees are due and payable as a part of the student's registration, and all persons must come prepared to pay the full amount of the semester charges. No student will be admitted to classes until such payment has been made.

EXPENSES AT COLLEGE PARK

The University reserves the right to make such changes in fees and other costs as any occasion may make necessary. Such changes, however, in comparison with the total cost to the student would be only nominal.

FEES FOR UNDERGRADUATE STUDENTS

Maryland

	First Semester	*Second Semester*	*Total*
Fixed Charges	$62.50	$62.50	$125.00
Athletic Fee	15.00	-------	15.00
*Special Fee	10.00	-------	10.00
**Student Activities Fee	10.00	-------	10.00
	$97.50	$62.50	$160.00

District of Columbia

	First Semester	*Second Semester*	*Total*
General Fees listed above	$ 97.50	$62.50	$160.00
Non-Resident Fee	25.00	25.00	50.00
	$122.50	$87.50	$210.00

Other States and Countries

	First Semester	*Second Semester*	*Total*
General Fee	$ 97.50	$ 62.50	$160.00
Non-Resident Fee	62.50	62.50	125.00
	$160.00	$125.00	$285.00

* This fee, established by special request of the Student Government Association for a period of eight years, beginning Sept. 1, 1930, was for the purpose of further improving the University grounds and the physical training facilities. The income now being derived from it is used to amortize bonds issued by the Athletic Board for the purpose of constructing Ritchie Coliseum.

** The Student Activities Fee is included at the request of the Student Government Association. Its payment is not mandatory, but it is really a matter of economy to the student, since it covers subscription to the student weekly paper, the literary magazine, and the year book; class dues, including admission to class dances; and admission to the performances of the musical and dramatic clubs.

Special Fees

Matriculation Fee, payable on first entrance	$5.00
Diploma Fee for bachelor's degree	10.00
Certificate Fee for Teacher's Diploma and other certificates where required, each	5.00
Pre-Medical and Pre-Dental Fee—Per semester in addition to fees shown above:	
Maryland	$25.00
District of Columbia	25.00
Other States and Countries	62.50

Expenses of Students Living in Dormitories

	First Semester	*Second Semester*	*Total*
Board	$135.00	$135.00	$270.00
Lodging	38.00	38.00	76.00
Laundry	13.50	13.50	27.00
	$186.50	$186.50	$373.00

Laboratory Fees Per Semester Course

Bacteriology	$2.00	Inorganic or Physical Chemistry	$4.00
Botany	$2.00	Home Economics: Foods	$3.00
Agricultural or Industrial Chemistry	$5.00	Zoology	$2.00
Analytical or Organic Chemistry	$6.00		

Miscellaneous Fees

Late Registration Fee	$3.00-$9.00
Fee for each change in registration after first week	$1.00
Fee for failure to file schedule card in Registrar's Office during first week of semester	$1.00
Absence Fee twenty-four hours before or after holiday	$3.00
Condition Examination Fee	$1.00
Special Examination Fee	$5.00
Fee for failure to report for medical examination appointment	$2.00
Part-time students carrying six semester hours or less—Per semester credit hour	$6.00

Students will be charged for wilful damage to property. Where responsibility for the damage can be fixed, the individual student will be billed for it; where it cannot, the entire student body will be charged a flat fee to cover the loss or damage.

Fees For Graduate Students

Matriculation Fee	$10.00
Fee for each semester credit hour	4.00
Diploma Fee—Master's Degree	10.00
Graduation Fee—Doctor's Degree	20.00

EXPLANATIONS

The Fixed Charges made to all students cover a part of the overhead expenses not provided for by the State.

The Board, Lodging, and Laundry charge may vary from semester to semester, but every effort will be made to keep expenses as low as possible.

Fees for Students Entering in February. Students entering the University for the second semester are charged one-half of the following fees: Athletic, Special, and Student Activities.

Fees for Part-Time Students. Undergraduate students carrying six semester hours or less of regularly scheduled courses are charged $6.00 per semester credit and regular laboratory fees. Students carrying seven or more semester hours are charged the regular fees. In the case of special courses with special fees this rule does not apply.

The Athletic Fee constitutes a fund which is collected from all students in the University at College Park for the maintenance of athletics, and the entire amount is turned over to the Athletic Director for disbursement. This fund is audited annually by the State Auditors.

Late Registration Fee. Students who do not complete their registration and classification on regular registration days will be required to pay $3.00 extra on the day following the last registration day, and $2.00 for each additional day thereafter until their registration is completed. The maximum fee is $9.00. Students who fail to file course cards in the specified periods in May and January are considered late registrants.

Absence Fee. In cases of absence during a period beginning 24 hours before the close of classes for a vacation or holiday and ending 24 hours after the resumption of classes, a student will be penalized by the payment of a special fee of $3.00 for each class missed. Students will be penalized, as in the case of a holiday, for absence from the first meeting of each class at the beginning of the second semester, unless properly excused.

Students desiring to be excused from classes before and after holidays must make application to the Dean at least one week before such holiday. No excuse for an absence before or after a holiday will be granted, except under the conditions specified.

In exceptional cases, such as sickness or death in the family, application for an excuse must be made within one week after a student returns.

DEFINITION OF RESIDENCE AND NON-RESIDENCE

Students who are minors are considered to be resident students, if at the

time of their registration their parents* have been residents of this State† for at least one year.

Adult students are considered to be resident students, if at the time of their registration they have been residents of this State† for at least one year; provided such residence has not been acquired while attending any school or college in Maryland.

The status of the residence of a student is determined at the time of his first registration in the University, and may not thereafter be changed by him unless, in the case of a minor, his parents* move to and become legal residents of this State†, by maintaining such residence for at least one full calendar year. However, the right of the student (minor) to change from a non-resident to a resident status must be established by him prior to registration for a semester in any academic year.

MISCELLANEOUS INFORMATION

In case of illness requiring a special nurse or special medical attention, the expense must be borne by the student.

Board and lodging may be obtained at boarding houses or in private families, if desired.

Students not rooming in the dormitories may obtain board and laundry at the University at the same rates as those living in the dormitories.

Day students may get lunches at the University cafeteria or at nearby lunch rooms.

The costs of books and supplies and personal needs will vary according to the tastes and habits of the individual student. Books and supplies average about $40.00 per year.

No diploma will be conferred upon, nor any certificate granted to a student who has not made satisfactory settlement of his account.

DORMITORY RULES AND REGULATIONS

The office of the Dormitory Manager is located in Room 121, Silvester Hall. Each dormitory student, after registering, will proceed immediately to the Dormitory Manager's office to receive his room key and take possession of his room. Instructions regarding the rules for the dormitories will be given to the student at this time. A matron is on duty in each dormitory and will give any information desired.

All freshmen students, except those who live at home, are required to room in the dormitories and board at the University dining hall.

All dormitory property assigned to the individual student will be charged against him, and the parent or guardian must assume responsibility for its

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* The term "parents" includes persons who, by reason of death or other unusual circumstances, have been legally constituted the guardians of and stand **in loco parentis** to such minor students.

† Students in the College Park Colleges who are residents of the District of Columbia are charged two-fifths of the non-resident fee charged to other non-residents.

possession without destruction other than that which may result from ordinary wear and tear.

All students assigned to dormitories are required to provide themselves with sufficient single blankets, at least two pairs of single sheets, three pillow cases, six towels, a pillow, a laundry bag, a broom, and a waste basket.

Room Reservations. All students who are to room in the dormitories must register their names and selection of rooms with the Dormitory Manager, and deposit $5.00 with the Cashier as a reserve fee. This fee will be deducted from the first semester charges when the student registers; if he fails to register, the fee will be forfeited. Reservations may be made at any time during the closing month of the school year by students already in the University. Students who are applying for admission to the University should signify their desire to reserve a room, and accompany this request with a remittance of $5.00.

Keys. Students who withdraw from the dormitories at any time and fail to surrender their keys to the Dormitory Manager immediately will be subject to a charge of $1.00.

WITHDRAWALS

Students registering for the dormitories and dining hall must continue for the year, as contracts for faculty and other service and for supplies are made on an annual basis, and fees are fixed on the supposition that students will remain for the entire year.

A student desiring to withdraw from the University must secure the written consent of the parent or guardian, to be attached to the withdrawal slip, which must be approved by the Dean and presented to the Registrar at least one week in advance of withdrawal. Charges for full time will be continued against him unless this is done. Withdrawal slips must bear the approval of the President before being presented to the Cashier for refund.

REFUNDS

For withdrawal within five days full refund of fixed charges, athletic fee, special fee, and student activities fee, with a deduction of $5.00 to cover cost of registration. All refunds for board, lodging, and laundry will be prorated.

After five days, and until November 1, the first semester or March 10, the second semester, refunds on all charges will be pro-rated, with a deduction of $5.00 to cover cost of registration.

After November 1, or March 10, refunds will be granted for board and laundry only, amounts to be pro-rated.

No refunds will be made without the written consent of the student's parent or guardian, except to students who pay their own expenses.

No student will be given cash for any part of his or her refund until all outstanding checks have been honored by the bank on which they are drawn.

EXPENSES AT BALTIMORE

The fees and expenses for the schools located in Baltimore are as follows.

	Matriculation	Tuition Resident	Tuition Non-Resident	Laboratory	Graduation
Medicine	$10.00 (once only)	$350.00	$500.00	$25.00 yr.	$15.00
*Dentistry	10.00 (once only)	250.00	300.00	40.00 yr.	15.00
Pharmacy	10.00 (once only)	200.00	250.00	40.00 yr.	15.00
Law (night)	10.00 (once only)	150.00	200.00	-------	15.00
(day)	10.00 (once only)	200.00	250.00	-------	15.00

Applicants for admission to any of the schools are charged a record investigation fee of $2.00.

* Students are required to pay, once only, a dissecting fee of $15.00.

Note—Late registration fee, $5.00.

STUDENT EMPLOYMENT

A considerable number of students earn some money through employment while in attendance at the University. No student should expect to earn enough money to pay all his expenses. The amounts vary from nearly nothing to one-half or three-fourths of all the required funds.

Generally the first year is the hardest for students desiring employment. After the student has demonstrated that he is worthy and capable, there is much less difficulty finding employment.

The University assumes no responsibility in connection with employment. It does, however, maintain a bureau to aid students who desire employment. The nearby towns and the University are canvassed, and a list of available positions is placed at the disposal of the students.

HONORS AND AWARDS

SCHOLARSHIP HONORS AND AWARDS

Scholarship Honors. Final honors for excellence in scholarship are awarded to one-fifth of the graduating class in each college. *First honors* are awarded to the upper half of this group; *second honors* to the lower half.

Scholarship Prizes. Plans are being made for the establishment of certain prizes for scholarship in undergraduate departments and curricula. It is hoped that such plans will be fully matured during the present scholastic year.

The Goddard Medal. The James Douglas Goddard Memorial Medal is awarded annually to the man from Prince George's County who makes the highest average in his studies and who at the same time embodies the most manly attributes. The medal is given by Mrs. Anne K. Goddard James, of Washington, D. C.

Sigma Phi Sigma Medal. The Delta Chapter of Sigma Phi Sigma Fraternity offers annually a gold medal to that freshman who makes the highest scholastic average during the first semester.

Alpha Zeta Medal. The Honorary Agricultural Fraternity of Alpha Zeta awards annually a medal to the agricultural student in the freshman class who attains the highest average record in academic work. The mere presentation of the medal does not elect the student to the fraternity, but simply indicates recognition of high scholarship.

Dinah Berman Memorial Medal. The Dinah Berman Memorial Medal is awarded annually to that sophomore who has attained the highest scholastic average of his class in the College of Engineering. The medal is given by Benjamin Berman.

The Kappa Kappa Gamma Sorority offers annually a loan of one hundred dollars ($100.00), without interest, to any woman student registered in the University of Maryland and selected by the Scholarship Committee—the said Committee to be composed of the deans of all Colleges in which girls are registered, including the Dean of Women and the Dean of the Graduate School.

Woman's Senior Honor Society Cup. Offered to the woman member of the senior class who has been in attendance at least three full years, and who has made the highest scholastic average.

Alpha Upsilon Chi Medal. This sorority awards a medal annually to the girl who attains the highest average in academic work during the sophomore year.

MILITARY AWARDS

The Governor's Cup. Offered each year by His Excellency, the Honorable Albert Cabell Ritchie, Governor of Maryland, to the best drilled company.

Military Faculty Award. The Military faculty of the University awards a medal to the student who has done most for the Reserve Officers' Training Corps.

Class of '99 Medal. The Class of 1899 offers each year a gold medal to the member of the battalion who proves himself the best drilled soldier.

Company Sword. The Class of 1897 awards annually to the captain of the best drilled company of the University battalion a silver-mounted sword.

The Alumni Cup. The Alumni offer a cup each year to the commanding officer of the best drilled platoon.

Scabbard and Blade Saber. This saber is offered for the commander of the winning platoon.

Scabbard and Blade Medal. This medal is offered for the student who remains longest in individual competition.

Gold Medals are offered by the Military Department to the two students who contribute most to the success of the band. Gold medals are offered also to the members of the best drilled squad.

PUBLICATIONS AWARDS

Medals are offered in Diamondback, Reveille, and Old Line work, for the students who have given most efficient and faithful service throughout the year.

ATHLETIC AWARDS

Silvester Watch for Excellence in Athletics. The Class of 1908 offers annually to "the man who typified the best in college athletics" a gold watch. The watch is given in honor of a former President of the University, R. W. Silvester.

Maryland Ring. The Maryland Ring is offered by Charles L. Linhardt to the Maryland man who is adjudged the best athlete of the year.

CITIZENSHIP AWARDS

Citizenship Prize. A gold watch is presented annually by H. C. Byrd, a graduate of the Class of 1908, to the member of the senior class who, during his collegiate career, has most nearly typified the model citizen, and has done most for the general advancement of the interests of the University.

Citizenship Prize for Women. The Citizenship Prize is offered by Mrs. Albert F. Woods to the woman member of the senior class who, during her collegiate career, has most nearly typified the model citizen, and has done most for the general advancement of the interests of the University.

STUDENT ACTIVITIES

The following description of student activities covers those of the undergraduate divisions of College Park. The description of student activities in the Baltimore divisions is included in the appropriate chapters in Section II.

GOVERNMENT

Regulation of Student Activities. The association of students in organized bodies, for the purpose of carrying on voluntary student activities in orderly and productive ways, is recognized and encouraged. All organized student activities, except those which are controlled by a special board or faculty committee, are under the supervision of the Committee on Student Affairs, subject to the approval of the President. Such organizations are formed only with the consent of the Committee on Student Affairs and the approval of the President. Without such consent and approval no student organization which in any way represents the University before the public, or which purports to be a University organization or an organization of University students, may use the name of the University in connection with its own name, or in connection with its members as students.

A pamphlet entitled *Academic Regulations*, issued annually and distributed to the students in the fall, contains full information concerning student activities as well as a transcript of the rules of the University.

Eligibility to Represent the University. Only students in good standing are eligible to represent the University in extra-curricular contests. No student while on probation may represent the University in such events as athletic contests, glee club concerts, dramatic performances, and debates.

Discipline. In the government of the University, the President and faculty rely chiefly upon the sense of responsibility of the students. The student who pursues his studies diligently, attends classes regularly, lives honorably, and maintains good behavior meets this responsibility. In the interest of the general welfare of the University, those who fail to maintain these standards are asked to withdraw. Students are under the direct supervision of the University only when on the campus, but they are responsible to the University for their conduct wherever they may be.

Student Government. The Student Government Association consists of two houses—the Executive Council, and the Student Congress—and operates under its own constitution. Its officers are a President, a Vice-President, a Secretary, and a Treasurer.

The Executive Council holds meetings the second and fourth Thursday of each month, while the Congress meets but once monthly. The Students' Executive Council, with the aid of the Committee on Student Affairs, which acts as an advisory board to the Council, performs the executive duties incident to managing student affairs.

Women Students' Government Association is an organization comprising all the women students, for the management of all affairs concerning the women students exclusively. It also operates under its own constitution. Its officers are the same as those of the General Students' Assembly. Its Executive Council has the advisory cooperation of the Dean of Women.

SOCIETIES

Honorary Fraternities. Honorary fraternities and societies in the University at College Park are organized to uphold scholastic and cultural standards in their respective fields. These are: Phi Kappa Phi, a national honorary fraternity open to honor students, both men and women, in all branches of learning; Sigma Xi, scientific fraternity; Alpha Zeta, a national honorary agricultural fraternity recognizing scholarship and student leadership; Tau Beta Pi, a national honorary engineering fraternity; Omicron Delta Kappa, men's national honor society, recognizing conspicuous attainments in extra curricular activities and general leadership; Kappa Phi Kappa, a national educational fraternity; Beta Phi Theta, honorary French fraternity; Sigma Delta Pi, a national honorary Spanish fraternity; Alpha Chi Sigma, a national honorary chemical fraternity; Scabbard and Blade, a nationl military society; Pi Delta Epsilon, a national journalistic fraternity; the Women's Senior Honor Society, a local organization recognizing conspicuous attainments; Alpha Lambda Delta, a national freshman women's honor society for scholarship attainments; Theta Gamma, a local Home Economics society; Alpha Psi Omega (Iota Chapter), national dramatic society, and Chi Alpha, local women's journalistic fraternity.

Fraternities and Sororities. There are twelve national and two local fraternities, and three national and two local sororities at College Park. These in the order of their establishment at the University are Kappa Alpha, Sigma Phi Sigma, Sigma Nu, Phi Sigma Kappa, Delta Sigma Phi, Alpha Gamma Rho, Theta Chi, Phi Alpha, Tau Epsilon Phi, Alpha Tau Omega, Phi Delta Theta, and Lambda Chi Alpha (national fraternities); and Alpha Omicron Pi, Kappa Delta, and Kappa Kappa Gamma (national sororities); and Iota Nu Delta, Sigma Alpha Mu (local fraternities), and Alpha Upsilon Chi and Delta Xi (local sororities).

Clubs and Societies. Many clubs and societies, with literary, scientific, social, and other special objectives are maintained in the University. Some of these are purely student organizations; others are conducted jointly by students and members of the faculty. The list is as follows: Authorship Club, Engineering Society, Horticulture Club, Latin American Club, Live Stock Club, New Mercer Literary Society, Poe Literary Society, Calvert Forum, Women's Athletic Association, Girls' "M" Club, Footlight Club, Debating Team, Rossbourg Club, Mathematics Society, Economics Club, Chess Club, Strauss Club, DeMolay Club, Psyche Club, Der Deutsche Verein, Riding Club, and Opera Club.

Student Grange. The Student Grange is a chapter of the National Grange. With the exception of two faculty advisers, the Student Grange membership is made up entirely from the student body. New members are elected by ballot when they have proved their fitness for the organization.

The general purposes of the Student Grange are to furnish a means through which students keep in touch with State and national problems of agricultural, economic, or general educational nature; to gain experience in putting into practice parliamentary rules; to learn the meaning of leadership, and to learn how to assume leadership that aids in the ultimate task of serving in one's community.

RELIGIOUS INFLUENCES

Staff. The University recognizes its responsibility for the welfare of the students, not only as intellectual, but as moral and spiritual beings. Provision is made for their religious needs. A full-time secretary of religious work is employed, who holds the position of General Secretary of the Maryland Christian Association, serving all the students. Student Pastors, representing the major denominational bodies, are officially appointed by the Churches for work with the students of their respective faiths. Each of the Student Pastors is also pastor of a local church of his denomination, which the students are encouraged to attend.

Religious Work Council. The Religious Work Council, comprising the President of the University, acting as Chairman, the Student Pastors, Faculty members, the General Secretary, and prominent students, focalizes, reviews, and stimulates the religious thought and activity of the student body. This Council has an executive secretary with an office in the Student Center, who is daily at the service of the students and the churches.

While there is no interference with any one's religion, religion itself is recognized, and every possible provision made that the student may keep in contact with the church of his choice.

Denominational Clubs. The Episcopal Club, the Lutheran Club, the Presbyterian Club, and the Baptist Club are active organizations of the students of their respective denominations (both men and women), and their friends, banded together for mutual fellowship and Christian service.

The Maryland Christian Association. The Maryland Christian Association is a fellowship of students and faculty members, both men and women, who unite for religious fellowship and service. The Association includes the Y. M. C. A. and the Y. W. C. A. of the University, and all students and faculty members are invited to join and to participate in its activities. The Association performs numerous valuable functions upon the campus, such as welcoming and assisting new students, publishing the University "M" book, securing speakers, holding religious services, seminars, discussion groups, forums, and social functions. The Association also sponsors the Cosmopolitan Club, which seeks to welcome and to create fellowship between students at the University from every land.

Vespers. Each Sunday evening a Vesper Service is held in the University auditorium, sponsored by the Religious Work Council, which features group singing, Scripture reading, prayer, and a religious address.

STUDENT PUBLICATIONS

Three student publications are conducted under the supervision of the Faculty Committee on Student Publications.

The Diamondback. A weekly, six page newspaper, the Diamondback, is published by the students. This publication summarizes the University news, and provides a medium for discussion of matters of interest to the students and the faculty.

The Reveille is the student annual, published by the Junior Class. It is a reflection of student activities, serving to commemorate the principal events of the college year.

The Old Line. A comic magazine put out quarterly by the students.

ALUMNI

The alumni are organized into several units, which elect representatives to the Alumni Council, an incorporated body which manages all general alumni affairs. Different alumni units represent the Medical School, the Pharmacy School, the Dental School, the Law School, the School of Nursing, while the group of colleges at College Park are represented by one unit. This College Park unit is governed by a board made up of representatives from each of the colleges located at College Park.

The Alumni Council is made up of elected representatives from the several units, with a membership of twenty-four. Each alumni unit in Baltimore elects two representatives to the Council; the alumni representing the College Park group of colleges elect twelve representatives.

SECTION II
Administrative Divisions

COLLEGE OF AGRICULTURE

HARRY J. PATTERSON, *Dean*

Agriculture is the primary pursuit of the human race, and permanent prosperity is in direct proportion to the producing capacity of the land. Land-Grant Colleges were founded to foster teaching of scientific agriculture.

The College of Agriculture has a two-fold purpose. On the one hand, it gives a liberal educational background in order that its graduates may live more satisfying lives, no matter what may be their eventual occupations. On the other hand, it trains men and women for the various occupations based upon those sciences which are fundamental to agriculture. With this training, some will find occupation as scientific specialists, others will engage in business and professional pursuits having close agricultural contacts, while others will take up practical farming.

Agriculture is constantly changing; no cropping system can be worked out once and for all time; new as well as old pests and diseases must be constantly combated; better feeding and breeding of live stock, and efficient marketing methods must be substituted for inefficient methods if agriculture is to maintain its position with the other industries. Above all, agriculture must be made profitable to the tiller of the soil, and must be established as a paying business for those who engage in it.

The curricula of the College of Agriculture are planned to give the student thorough and practical instruction in agriculture and related sciences, and at the same time afford him an opportunity to specialize along the lines in which he is particularly interested.

Departments

The College of Agriculture includes the following departments: Agricultural Economics; Agronomy (including Crops and Soils); Animal Husbandry; Bacteriology; Botany; Dairy Husbandry; Entomology and Bee Culture; Farm Forestry; Farm Management; Farm Mechanics; Genetics and Statistics; Horticulture (including Pomology, Vegetable Gardening, Landscape Gardening, and Floriculture); Plant Pathology; Plant Physiology and Bio-chemistry; Poultry Husbandry.

Admission

The requirements for admission are discussed under "Entrance," in Section I.

Requirements for Graduation

One hundred and twenty-eight semester hours are required for graduation. The detailed requirements for each department are included in the discussion of Curricula in Agriculture.

Farm and Laboratory Practice

The head of each department will help to make available opportunities for practical or technical experience along his major line of study for each student whose major is in that department and who is in need of such experience. For inexperienced students in many departments this need may be met by one or more summers spent on a practical farm.

Student Organizations

The students of the College of Agriculture maintain a Student Grange, a Horticulture Club, a Livestock Club, and an honor fraternity, Alpha Zeta.

Membership and work in these is voluntary, and no college credits are given for work done in them; yet much of the training obtained in them is fully as valuable as that acquired from regularly prescribed courses.

The Student Grange represents the Great National Farmers' fraternity of the Order of Patrons of Husbandry, and in their work they emphasize "Training for Rural Leadership." They sponsor much deputation work in local granges throughout the state. The Horticulture Club sponsors the Horticulture Show in the fall, and the Livestock Club, the Fitting and Showing Contest in the Spring. Both of these exhibitions are very creditable University functions. They give valuable training and inspiration to the students.

Alpha Zeta—National Agricultural Honor Fraternity

Membership in this fraternity is chosen from the students in the College of Agriculture after an earnest agricultural motive and executive ability have been demonstrated. This organization fosters good scholarship and to that end awards a gold medal to the member of the freshman class in agriculture who makes the highest record during the year.

Fellowships

A limited number of graduate fellowships, which carry remuneration of $500 to $1000 yearly, are available to graduate students. Students who hold these fellowships spend a portion of their time assisting in classes and laboratories. The rest of the time is used for original investigation or assigned study. (See Graduate School.)

Curricula in Agriculture

Curricula within the College of Agriculture divide into three general classes.

(1) Scientific curricula are designed to prepare students for positions as technicians, teachers, or investigators. These positions are usually in the various scientific and educational departments, or bureaus of the Federal, State, or Municipal governments; in the various schools or experiment stations; or in the laboratories of private corporations.

(2) Technical curricula are designed to prepare students for farming as owners, tenants, managers, or specialists; for positions as county agricultural agents, or teachers of agriculture in high schools; as executives, salesmen, or other employees in commercial businesses with close agricultural contact and point of view.

(3) Courses of study may be arranged for students who desire to return to the farm after one or more years of training in practical agricultural subjects. (For details see "Special Students in Agriculture," page 81.)

Student Advisers

Each freshman in the College of Agriculture is assigned to an adviser from the faculty, who is selected with due consideration for the major line of interest of the student. Not more than five or six students are assigned to any one person. With the advice and consent of his adviser and the dean, any student may make such modifications in his curriculum as are deemed advisable to meet the requirements of his particular case.

The suggested curricula in the catalogue include a sufficient number of electives to afford opportunity for students who so desire to select major and minor fields of study from different departments. In the first two years, however, it is usually wise to follow the recommendations contained in the footnotes below the suggested curricula.

	Freshman Year	*Semester I*	*Semester II*
	General Chemistry (Chem. 1y)	4	4
	Composition and Rhetoric (Eng. 1y)	3	3
	Basic R. O. T. C. (M. I. 1y)	1	1
	Elect one from each of the following groups:		
1	Biology (Bot. 1f or s and Zool. 1f or s) / Botany (Bot. 1f and 2s)	4	4
2	Reading and Speaking (P.S. 1y) / College Aims (Guid. 1y)	1	1
3	Mathematics (Math. 1f and 2s)		
1	Modern Language (French 1y or German 1y)		
4	Entomology (Ent. 1f and 3s)	3	3
5	Agriculture (A.H. 1f and D.H. 1s) or (Agron. 1f and 2s) or (Hort. 1f and 11s)		

Sophomore Year

(See special curricula for Agricultural Chemistry, Agricultural Education, Bacteriology, Botany, Entomology, Floriculture, and Landscape Gardening.)

	Basic R. O. T. C. (M. I. 2y)	2	2
	Elect one of the following:		
	Chemistry (Chem. 12f and 13s)	3-4	3
6	Economics (A.E. 1f and Econ. 5s)		
	Elect three or four of the following:		
7	Mathematics (Math. 5y)	10-12	11-12
7	Physics (Phys. 1y)		
5	Geology and Soils (Geol. 1f and Soils 1s)		
5	Agriculture (A.H. 101f and P.H. 1s)		
5	Agriculture (See Freshman Electives)		

1. Required of Students whose major is Botany.
2. Required of students whose major is Agricultural Education.
3. Required of students whose major is Agricultural Chemistry and Landscape Gardening.
4. Required of students whose major is Entomology.
5. Recommended for students who contemplate farming or employment in industries closely associated with farming.
6. Required of students whose major is Agricultural Economics.

3 and 7. Recommended for students who are interested in biological science and hence are likely to pursue graduate studies.

AGRICULTURAL CHEMISTRY

The objectives of the curriculum in Agricultural Chemistry are the fitting of students for work in agricultural experiment stations, and in soil, fertilizer, and food laboratories.

(For special requirements and curriculum see page 95, College of Arts and Sciences.)

AGRONOMY

In the Department of Agronomy are grouped the courses in farm crops, soils, and plant breeding.

The curriculum in farm crops aims to give the student the fundamental principles of crop production. Special attempt is made to adapt the work to the young man who wishes to apply scientific principles of field crop culture and improvement on the farm. At the same time enough freedom is given the student in the way of electives so that he may register for subjects which might go along with the growing of crops on his particular farm. A student graduating from the course in agronomy should be well fitted for general farming, investigational work in the State or Federal Experiment Stations, or county agent work.

The division of soils gives instruction in the physics, chemistry, and biology of the soil, the courses being designed to equip the future farmer with a complete knowledge of his soil and also to give adequate training to students who desire to specialize in soils. Students who are preparing to take up research or teaching are expected to take graduate work in addition to the regular undergraduate courses that are offered. The division possesses the necessary equipment and facilities for the instruction in these subjects, and in addition affords opportunities for the student to come in contact with the research at the Agricultural Experiment Station, especially in the pot culture laboratories, and on the experimental fields at the station and in other parts of the State.

Graduate students will find unusual opportunities to fit themselves for teaching soils in agricultural colleges, to conduct research in experiment stations, and to carry on work with the Bureau of Soils, United States Department of Agriculture.

Crops Division

	Semester	
Junior Year	*I*	*II*
Genetics (Gen. 101f)	3	—
Technology of Crop Marketing (Agron. 102f)	2 or 4	
General Bacteriology (Bact. 1f)	4	—
Expository Writing (Eng. 5f and 6s)	2	2
Elementary Plant Physiology (Plt. Phys. 1f)	4	—
Fundamentals of Economics (Econ. 5s)	—	3
Electives	1	11
	16	16
Senior Year		
Crop Breeding (Agron. 103f)	2	—
Advanced Genetics (Gen. 102 s)	—	2
Agricultural Economics (A. E. 2f)	3	—
Methods of Crop and Soil Investigations (Agron. 121 s)	—	2
Soil Geography (Soils 103f)	3	—
Farm Drainage (F. Mech. 107 s)	—	2
Farm Machinery (F. Mech. 101f)	3	—
Farm Forestry (For. 1 s)	—	3
Farm Management (F. M. 2f)	4	—
Electives	1	7
	16	16

Soils Division

Junior Year		
Expository Writing (Eng. 5f and 6 s)	2	2
Fundamentals of Economics (Econ. 5 s)	—	3

	Semester I	II
General Bacteriology (Bact. 1f)	4	—
Soils and Fertilizers (Soils 1f)	5	—
Soil Management (Soils 102 s)	—	3
Elementary Plant Physiology (Plt. Phys. 1f)	4	—
Electives	1	8
	16	16
Senior Year		
Agricultural Economics (A. E. 2f)	3	—
Farm Management (F. M. 2f)	4	—
Methods of Crop and Soil Investigations (Agron. 121 s)	—	2
Soil Geography (Soils 103f)	3	—
Farm Drainage (F. Mech. 107 s)	—	2
Electives	6	12
	16	16

ANIMAL HUSBANDRY

The courses in animal husbandry have been developed with the idea of teaching the essential principles underlying the breeding, feeding, development, and management of livestock, together with the economics of the livestock industry.

The curriculum in animal husbandry is so planned as to allow plenty of latitude in the selection of courses outside of the department, thus giving the student a broad, fundamental training and fitting him to become the owner or superintendent of general or specialized livestock farms.

Opportunity for specialization is offered to those who may desire to become instructors or investigators in the field of animal husbandry.

Some livestock are maintained at the University. In addition, there are available, for use in instruction, the herds of livestock owned by the Federal Bureau of Animal Industry at Beltsville, Maryland. Through the courtesy of Maryland breeders, some private herds are also available for inspection and instruction.

	Semester I	II
Junior Year		
Expository Writing (Eng. 5f and 6 s)	2	2
General Bacteriology (Bact. 1f)	4	—
Fundamentals of Economics (Econ. 5 s)	—	3
Principles of Breeding (A. H. 102 s)	—	3
Comparative Anatomy and Physiology (Bact. 106f)	3	—
Genetics (Gen. 101f)	3	—
Livestock Judging (A. H. 105f and 106 s)	1	1
Electives	3	7
	16	16

	Semester I	II
Senior Year		
Agricultural Economics (A. E. 2f)	3	—
Farm Machinery (F. Mech. 101f)	3	—
Animal Hygiene (Bact. 120 s)	—	3
Livestock Management (A. H. 103f and 104 s)	5	5
General Physiological Chemistry (Chem. 108 s)	—	4
Electives	5	4
	16	16

BACTERIOLOGY AND PATHOLOGY

The present organization of this department has been brought about with two main purposes in view. The first is to give all the students of the University an opportunity to obtain a general knowledge of this basic subject. The second purpose, and one for which this curriculum was designed, is to fit students for positions along bacteriological lines. These include the work of dairy bacteriologists and inspectors; soil bacteriologists; federal, state, and municipal bacteriologists for public health positions, research positions, commercial positions, etc. The demand for persons qualified for this work is usually much greater than the supply.

	Semester I	II
Sophomore Year		
Elements of Organic Chemistry (Chem. 12f)	5	—
Quantitative Analysis (Chem. 4 s)	—	4
General Bacteriology (Bact. 1f)	4	—
Pathogenic Bacteriology (Bact. 2 s)	—	4
Basic R. O. T. C. (M. I. 2y) or Physical Education (Phys. Ed. 6y and 8y)	2	2
Electives	5	6
	16	16
Junior Year		
Dairy Bacteriology (Bact. 101f)	3	—
Dairy Bacteriology (Bact. 102 s)	—	3
Expository Writing (Eng. 5f and 6 s)	2	2
Serology (Bact. 104f)	4	—
Hematology (Bact. 103f)	2	—
Sanitary Bacteriology (Bact. 112 s)	—	3
Urinalysis (Bact. 107 s)	—	2
Electives	5	6
	16	16
Senior Year		
Bacteriological Problems (Bact. 121f)	3-5	—

	Semester I	Semester II
Bacteriological Problems (Bact. 122 s)	—	3-5
General Physiological Chemistry (Chem. 108 s)	—	4
Genetics (Gen. 101f)	3	—
Statistics (Gen. 111f)	2	—
Seminar (Bact. 130f)	1	—
Seminar (Bact. 131s)	—	1
Electives	6	6
	16	16

BOTANY

The courses listed for the curriculum in botany make a kind of skeleton of essentials, to which the student adds the individual requirements to make a complete four-year course. No electives are permitted in the freshman and sophomore years. In the junior and senior years botanical courses may be elected to fit the individual needs of the student, as not all students have the same ends in view. They may wish to prepare for teaching, investigational work in state or governmental experiment stations, governmental inspection, or any other vocations which botanists follow. Both the junior and senior years also allow considerable freedom in the election of non-botanical courses, in order to round out a fairly broad cultural education and to satisfy the educational requirements for those who desire to qualify for high school teaching. The curriculum as outlined lays a good foundation for graduate work in any field of botanical science.

	Semester I	Semester II
Freshman Year		
General Botany (Bot. 1f and 2 s)	4	4
General Chemistry (Chem. 1y)	4	4
Composition and Rhetoric (Eng. 1y)	3	3
Reading and Speaking (P. S. 1y)	1	1
Modern Language (French or German)	3	3
Basic R. O. T. C. (M. I. 1y) or Physical Education (Phys. Ed. 2y and 4y)	1	1
	16	16
Sophomore Year		
Diseases of Plants (Plt. Path. 1f)	4	—
Local Flora (Bot. 3 s)	—	2
General Zoology (Zool. 1 s)	—	4
Elements of Organic Chemistry (Chem. 12f)	4	—
Algebra and Plane Trigonometry (Math. 1f and 2 s)	3	3
Modern Language	3	3

	Semester I	Semester II
Basic R. O. T. C. (M. I. 2y) or Physical Education (Phys. Ed. 6y and 8y)	2	2
Electives	—	2
	—	—
	16	16
Junior Year		
Elementary Plant Physiology (Plt. Phys. 1f)	4	—
General Physics (Phys. 1y)	4	4
General Bacteriology (Bact. 1s)	—	4
Expository Writing (Eng. 5f and 6 s)	2	2
Electives	6	6
	—	—
	16	16
Senior Year		
Genetics (Gen. 101f)	3	—
Botanical Electives (Maximum)	7	10
Other Electives (Minimum)	6	6
	—	—
	16	16

DAIRY AND ANIMAL HUSBANDRY

Dairy Husbandry

The Department of Dairy Husbandry offers courses in two major lines; namely, dairy production and dairy manufacture. The curriculum in each of these lines is so arranged as to give the student an intimate knowledge of the science and facility in the art of dairy husbandry practice. The dairy production option is organized to meet the specific requirements of students who are especially interested in the care, feeding, breeding, management, and improvement of dairy cattle and in the production and sale of market milk.

The option in dairy manufactures is planned to meet the particular demands of students who are especially interested in the processing and distribution of milk, in dairy plant operation, and in the manufacure and sale of butter, cheese, ice-cream, and other milk products.

The dairy herd and the dairy laboratories are available to students for instruction and for research. Excellent opportunity is, therefore, afforded to both advanced undergraduate and graduate students for original investigation and research. Graduates in the courses in dairy husbandry should be well qualified to become managers of dairy farms, teachers, investigators in the State and Federal Agricultural Experiment Stations, or to enter the field of commercial dairying.

DAIRY HUSBANDRY

Dairy Manufacture

	Semester I	Semester II
Junior Year		
Expository Writing (Eng. 5f and 6 s)	2	2
Fundamentals of Economics (Econ. 5s)	—	3
General Bacteriology (Bact. 1f)	4	—
Introductory Accounting (Econ. 109y)	3	3
Dairy Chemistry (Chem. 106 s)	—	4
Dairy Manufacturing (D. H. 103f and 104 s)	3	3
Market Milk (D. H. 105f)	4	—
Electives	3-4	1-4
	16	16
Senior Year		
Agricultural Economics (A. E. 2f)	3	—
Market Milk (D. H. 105f)	4	—
Dairy Manufacturing (D. H. 103f and 104 s)	3	3
Dairy Bacteriology (Bact. 101f)	3	—
Dairy Plant Technic (D. H. 107 s)	—	2
Marketing of Farm Products (A. E. 102 s)	—	3
Co-operation in Agriculture (A. E. 103f)	3	—
Electives	3-4	8-11
	16	16

Dairy Production

	Semester I	Semester II
Junior Year		
Expository Writing (Eng. 5f and 6 s)	2	2
Fundamentals of Economics (Econ. 5 s)	—	3
General Bacteriology (Bact. 1f)	4	—
Dairy Production (D. H. 101f)	3	—
Principles of Breeding (A. H. 102 s)	—	3
Advanced Dairy Cattle Judging (D. H. 102 s)	—	1
Genetics (Gen. 101f)	3	—
Farm Drainage (F. Mech. 107 s)	—	2
Electives	4	5
	16	16
Senior Year		
Agricultural Economics (A. E. 2f)	3	—
Market Milk (D. H. 105f)	4	—
Dairy Bacteriology (Bact. 101f)	3	—
Animal Hygiene (Bact. 120 s)	—	3
General Physiological Chemistry (Chem. 108 s)	—	4
Electives	6	9
	16	16

ENTOMOLOGY

This department is concerned with the teaching of entomology to all agricultural students as a basis for future work in pest control, in the preparation of technically trained entomologists, and in furnishing courses to students in Arts and Sciences and Education.

The success of the farmer and particularly the fruit grower is in a large measure dependent upon his knowledge of the methods of preventing or combating the pests that menace his crops each year. Successful methods of control are emphasized in the economic courses.

The fact that the entomological work of the Experiment Station, the Extension Service, the College of Agriculture, and the office of the State Entomologist are in one administrative unit, enables the student in this department to avail himself of the many advantages accruing therefrom. Advanced students have special advantages in that they may be assigned to work on Station projects already under way. The department takes every advantage of the facilities offered by the Bureau of Entomology of the U. S. Department of Agriculture, the National Museum, Smithsonian Institution, various other local laboratories, the libraries in Washington, and the Washington Entomological Society. Thus students are given many opportunities of meeting authorities in the various fields of entomology, to observe projects under way, consult collections, and hear addresses on every phase of entomology. Following is the suggested curriculum in Entomology. It can be modified to suit individual demand. Students not starting this curriculum in their freshman year can with a few changes in schedule meet the requirements in the four years.

	Semester I	Semester II
Freshman Year		
General Chemistry (Chem. 1y)	4	4
General Zoology (Zool. 1f)	4	—
General Botany (Bot. 1 s)	—	4
Introductory Entomology (Ent. 1f)	3	—
Insect Biology (Ent. 3s)	—	3
Composition and Rhetoric (Eng. 1y)	3	3
Basic R. O. T. C.	1	1
	15	15
Sophomore Year		
Elements of Organic Chemistry (Chem. 12f)	4	—
Agricultural Chemical Analysis (Chem. 13 s)	—	3
Insect Morphology and Taxonomy (Ent. 2y)	3	3
French or German (1y)	3	3
Expository Writing (Eng. 5f and 6 s)	2	2
Basic R. O. T. C. (M. I. 2y)	2	2
Electives	3	4
	17	17

	Semester	
Junior Year	*I*	*II*
*Economic Entomology (Ent. 101y)	2	2
Diseases of Plants (Plt. Path. 1f)	4	—
General Bacteriology (Bact. 1 s)	—	4
French or German (2y)	3	3
Electives	7	7
	—	—
	16	16
Senior Year		
*Insect Pests of Special Groups (Ent. 104y)	3	3
Seminar (Ent. 103y)	1	1
Special Problems (Ent. 4f or s)	2	2
Electives	10	10
	—	—
	16	16

Electives in physics, zoology, plant pathology, plant physiology, plant taxonomy, genetics, statistics, and modern languages are urged as especially desirable.

FARM MANAGEMENT AND AGRICULTURAL ECONOMICS

Farm management has been defined as the business of the individual farmer so to organize his business as to produce the greatest continuous profit. This can be done, however, only when the organization is in accordance with the broader principles of agricultural economics. It requires not only knowledge of many factors involved in the production of crops and animals, but also administrative ability to co-ordinate them into the most efficient farm organization. Farming is a business, and as such demands for its successful conduct the use of business methods. As a prerequisite to the technical farm management course there is offered a course in farm accounting. This course is not elaborate, but is designed to meet the need for a simple yet accurate system of farm business records.

The aim of the farm management course is to assist the student to perceive the just relationship of the several factors of production and disposition as applicable to local conditions, and to develop in him executive and administrative capacity.

Agricultural economics considers the fundamental principles underlying production, distribution, and consumption, more especially as they bear upon agricultural conditions. Land, labor, and capital are considered in their relationship to agriculture.

The farmer's work does not end with the production of crops or animal products. More and more it is evident that economical distribution is as important a factor in farming as is economical production.

* Courses taken by both juniors and seniors in alternate years.

Students well trained in farm management and agricultural economics are in demand for county agent work, farm bureau work, experiment station or United States Government investigation, and college or secondary school teaching.

	Semester	
Junior Year	*I*	*II*
Agricultural Economics (A. E. 2f)	3	—
Marketing of Farm Products (A. E. 102 s)	—	3
Farm Accounting (F. M. 1 s)	—	3
Business Law (Econ. 107f and 108 s)	3	3
Grading Farm Crops (Agron. 3 s)	—	2
Business Organization and Operation (Econ. 7f)	3	—
Statistics (Gen. 111f and 112 s)	2	2
Expository Writing (Eng. 5f and 6 s)	2	2
Electives	3	1
	—	—
	16	16
Senior Year		
Co-operation in Agriculture (A. E. 103 s)	—	3
Transportation of Farm Products (A. E. 101 s)	—	3
Seminar (A. E. 202y)	1-3	1-3
Farm Management (F. M. 2f)	4	—
Farm Machinery (F. Mech. 101f)	3	—
Agricultural Finance (A. E. 104 s)	—	3
Rural Life and Education (Ag. Ed. 106 s)	—	3
Money and Credit (Econ. 101f)	2	—
Electives	4-6	1-3
	—	—
	16	16

FARM MECHANICS

The Department of Farm Mechanics is organized to offer students of agriculture training in those agricultural subjects which are based upon engineering principles. These subjects may be grouped under three heads: farm machinery, farm buildings, and farm drainage.

The modern tendency in farming is to replace hand labor, requiring the use of many men, by large machines, which do the work of many men yet require only one man for their operation. In many cases horses are being replaced by tractors to supply the motive force for these machines. Trucks, automobiles, and stationary engines are found on almost every farm. It is highly advisable that the student of any branch of agriculture have a working knowledge of the construction and adjustments of these machines.

More than one-fourth of the total value of Maryland farms is invested in the buildings. The study of the design of the various buildings, from the standpoint of convenience, economy, sanitation, and appearance, is, therefore, important.

The study of drainage includes the principles of tile drainage, the laying out and construction of tile drain systems, the use of open ditches, and a study of the Maryland drainage laws.

GENERAL AGRICULTURE

Those who do not care to specialize in any particular phase of agriculture will pursue the following curriculum:

	Semester I	Semester II
Junior Year		
Diseases of Plants (Plt. Path. 1f)	4	—
Elementary Plant Physiology (Plt. Phys. 1f)	4	—
General Bacteriology (Bact. 1f)	4	—
Expository Writing (Eng. 5f and 6 s)	2	2
Farm Poultry (Poultry 1 s)	—	3
Genetics (Gen 101f)	3	—
Farm Accounting (F. M. 1 s)	—	3
Principles of Breeding (A. H. 102 s)	—	3
Fundamentals of Economics (Econ. 5 s)	—	3
Electives	—	2
	17	16
Senior Year		
Agricultural Economics (A. E. 2f)	3	—
Farm Management (F. M. 2f)	4	—
Farm Machinery (F. Mech. 101f)	3	—
Gas Engines, Tractors, and Automobiles (F. Mech. 102 s)	—	3
Farm Drainage (F. Mech. 107 s)	—	2
Farm Forestry (For. 1 s)	—	3
Electives	6	8
	16	16

GENETICS AND STATISTICS

Rapid accumulation of knowledge in the field of genetics has revolutionized the viewpoint of those interested in plant and animal breeding and in eugenics.

Teachers and investigators have increasing occasion to interpret statistical data presented by others, as well as to gather and organize original material.

The Department of Genetics and Statistics offers students training in (1) the principles of heredity and genetics, and (2) the tools and methods employed in statistical description and induction.

HORTICULTURE

There are several reasons why the State of Maryland should be pre-

eminent in horticulture and offer such excellent opportunities for horticultural enterprises. The more evident ones are the wide variation in soil and climate from the Eastern Shore to the mountains in the west, the nearness to all of the large Eastern markets, and the large number of railroads, interurban lines, highways, and waterways, which combine to favor the growing of horticultural crops and to make marketing easy and comparatively cheap.

The Department of Horticulture offers four major lines of work; namely, pomology, olericulture, floriculture, and landscape gardening. Students wishing to specialize in horticulture may take a general course during the four years, or the student may specialize in any of the four divisions. The courses have been so planned that upon their completion students should be fitted to engage in commercial work, county agent work, or teaching and investigational work in State and Federal institutions.

On the University campus, the department has at its disposal ten acres of ground devoted to vegetable gardening, eighteen acres of orchards, small fruits, and vineyards, and twelve greenhouses, in which flowers and forcing crops are grown. One building on the campus is devoted to horticultural teaching and research. In addition, the department has acquired 270 acres of land, three miles from the college, which is used for experimental and teaching purposes. Members of the teaching staff are likewise members of the experiment station staff, and hence students have an opportunity to become acquainted with the research being carried on in the department. Excellent opportunity for investigating new problems is afforded to advanced undergraduates and to graduate students.

Students who intend to specialize in pomology or olericulture are required to take the same subjects which other agricultural students take during the first two years. Students who specialize in floriculture or landscape gardening, however, will take slightly different curricula. It is felt that such students require certain special courses not required of all agricultural students. The curricula follow:

Pomology

	Semester I	Semester II
Junior Year		
Fundamentals of Economics (Econ. 5 s)	—	3
Systematic Pomology (Hort. 2f)	3	—
Small Fruit Culture (Hort. 4 s)	—	2
Fruit and Vegetable Judging (Hort. 5f)	2	—
Expository Writing (Eng. 5f and 6 s)	2	2
Elementary Plant Physiology (Plt. Phys. 1f)	4	—
Diseases of Plants (Plt. Path. 1f)	4	—
Introductory Entomology (Ent. 1 s)	—	3
Genetics (Gen. 101f)	3	—
Electives	—	5
	18	15

Senior Year	Semester I	Semester II
Commercial Fruit Growing (Hort. 101f)	3	—
Economic Fruits of the World (Hort. 102f)	2	—
Horticultural Seminar (Hort. 43y)	1	1
General Landscape Gardening (Hort. 31 s)	—	2
General Floriculture (Hort. 21f)	2	—
Farm Management (F. M. 2f)	4	—
Horticultural Breeding and Pollination Methods (Hort. 41 s)	—	1
Horticultural Research and Thesis (Hort. 42y)	2	2
Electives	2	10
	—	—
	16	16

Olericulture

Junior Year		
Fundamentals of Economics (Econ. 5 s)	—	3
Small Fruit Culture (Hort. 4 s)	—	2
Diseases of Plants (Plt. Path. 1f)	4	—
Genetics (Gen. 101f)	3	—
Expository Writing (Eng. 5f and 6 s)	2	2
Elementary Plant Physiology (Plt. Phys. 1f)	4	—
Fruit and Vegetable Judging (Hort. 5f)	2	—
Truck Crop Production (Hort. 12f)	3	—
Vegetable Forcing (Hort. 13 s)	—	3
Introductory Entomology (Ent. 1 s)	—	3
Electives	—	2
	—	—
	18	15

Senior Year		
Farm Management (F. M. 2f)	4	—
General Landscape Gardening (Hort. 31 s)	—	2
General Floriculture (Hort. 21f)	2	—
Horticultural Breeding and Pollination Methods (Hort. 41 s)	—	1
Tuber and Root Crops (Hort. 103f)	2	—
Systematic Olericulture (Hort. 105f)	3	—
Advanced Truck Crop Production (Hort. 104 s)	—	2
Horticultural Research and Thesis (Hort. 42 y)	2	2
Horticultural Seminar (Hort. 43y)	1	1
Electives	2	8
	—	—
	16	16

Floriculture

Sophomore Year		
Elements of Organic Chemistry (Chem. 12f)	4	—
Agricultural Chemical Analysis (Chem. 13 s)	—	3

Elementary Plant Physiology (Plt. Phys. 1f)	4	—
Geology (Geol. 1f)	3	—
Soils and Fertilizers (Soils 1 s)	—	3
General Landscape Gardening (Hort. 31 s)	—	2
Elementary Pomology (Hort. 1f)	3	—
Basic R. O. T. C. (M. I. 2y)	2	2
Electives	—	6
	—	—
	16	16

Junior Year		
*Greenhouse Management (Hort. 22y)	3	3
Floricultural Practice (Hort. 23y)	2	2
Floricultural Trip (Hort. 27 s)	—	1
*Greenhouse Construction (Hort. 24 s)	—	2
*Garden Flowers (Hort. 26f)	3	—
Expository Writing (Eng. 5f and 6 s)	2	2
Fundamentals of Economics (Econ. 5 s)	—	3
Diseases of Plants (Plt. Path. 1f)	4	—
Local Flora (Bot. 3 s)	—	2
Elements of Landscape Design (Hort. 32f)	3	—
Electives	—	1
	—	—
	17	16

Senior Year		
*Commercial Floriculture (Hort. 25y)	3	3
Plant Materials (Hort. 106y)	2	3
Vegetable Forcing (Hort. 13 s)	—	3
Agricultural Economics (A. E. 2f)	3	—
Horticultural Breeding and Pollination Methods (Hort. 41 s)	—	1
Horticultural Seminar (Hort. 43y)	1	1
Horticultural Research and Thesis (Hort. 42y)	2	2
Electives	5	3
	—	—
	16	16

Landscape Gardening

Freshman Year		
General Chemistry (Chem. 1y)	4	4
General Zoology (Zool. 1f)	4	—
General Botany (Bot. 1 s)	—	4
Composition and Rhetoric (Eng. 1y)	3	3
Reading and Speaking (P. S. 1y)	1	1
Algebra (Math. 1f); Plane Trigonometry (Math. 2 s)	3	3
Basic R. O. T. C. (M. I. 1y)	1	1
	—	—
	16	16

* Courses taken by both juniors and seniors in alternate years.

Sophomore Year	Semester I	Semester II
French or German	3	3
Elementary Plant Physiology (Plt. Phys. 1f)	4	—
Geology (Geol. 1f)	3	—
Soils and Fertilizers (Soils 1 s)	—	3
Surveying (Surv. 1f)	1	—
*General Landscape Gardening (Hort. 31 s)	—	2
Expository Writing (Eng. 5f and 6 s)	2	2
Engineering Drafting (Dr. 1y)	1	1
Basic R. O. T. C. (M. I. 2y)	2	2
Electives	—	3
	16	16

Junior Year		
Elementary Pomology (Hort. 1f)	3	—
†Plant Materials (Hort. 106y)	2	3
†History of Landscape Gardening (Hort. 35f)	1	—
*Elements of Landscape Design (Hort. 32f)	3	—
†Landscape Design (Hort. 33 s)	—	3
†Garden Flowers (Hort. 26f)	3	—
Fundamentals of Economics (Econ. 5 s)	—	3
Diseases of Plants (Plt. Path. 1f)	4	—
Local Flora (Bot. 3 s)	—	2
Farm Drainage (F. Mech. 107 s)	—	2
Electives	1	3
	16	16

Senior Year		
†Landscape Design (Hort. 34f)	3	—
†Landscape Construction and Maintenance (Hort. 36 s)	—	1
†Civic Art (Hort. 37 s)	—	2
Horticultural Research and Thesis (Hort. 42y)	2	2
Horticultural Seminar (Hort. 43y)	1	1
Electives	10	10
	16	16

POULTRY HUSBANDRY

The course in Poultry Husbandry is designed to give the student a broad and comprehensive view of the practices of poultry raising. Those students who expect to develop into teachers, extension workers, or investigators should choose as electives such subjects as psychology, economic history, sociology, philosophy, political science, and kindred subjects.

* Courses taken by both sophomores and juniors in alternate years.
† Courses taken by both juniors and seniors in alternate years.

Junior Year	Semester I	Semester II
Poultry Production (Poultry 103 s)	—	4
Expository Writing (Eng. 5f and 6 s)	2	2
General Bacteriology (Bact. 1f)	4	—
Pathogenic Bacteriology (Bact. 2 s)	—	4
Genetics (Gen. 101f)	3	—
Poultry Keeping (Poultry 102f)	4	—
Fundamentals of Economics (Econ. 5 s)	—	3
Electives	3	3
	16	16

Senior Year		
Agricultural Economics (A. E. 2f)	3	—
Farm Management (F. M. 2f)	4	—
Farm Accounting (F. M. 1 s)	—	3
Animal Hygiene (Bact. 120 s)	—	3
Poultry Breeds (Poultry 104 f)	4	—
Poultry Management (Poultry 105 s)	—	4
Marketing of Farm Products (A. E. 102 s)	—	3
Electives	5	3
	16	16

SPECIAL STUDENTS IN AGRICULTURE

Mature students who have fulfilled the regular college entrance requirements and are not candidates for degrees may, on consent of the dean, register as special students and pursue a program of studies not included in any regular curriculum, but arranged to meet the needs of each individual. All university fees for these special students are the same as fees for regular students.

There are many young farmers who desire to take short intensive courses in their special lines of work during slack times on the farm. Arrangements have been made to permit such persons to register at the office of the Dean of the College of Agriculture and receive cards granting them permission to visit classes and work in the laboratories of the different departments. This opportunity is created to aid florists, poultrymen, fruit-growers, gardeners, or other especially interested persons who are able to get away from their work at some time during the year.

In case such persons find it possible to remain in attendance for a full semester or for a full year, they may arrange to audit (that is, to attend regularly without credit) a full schedule of studies in the Agricultural College.

The regular charges are *$5.00 for registration and $1.00 per week for the time of attendance.

* One registration is good for any amount of regular or intermittent attendance during a period of four years.

COMBINED PROGRAM IN AGRICULTURE AND VETERINARY MEDICINE

By arrangement with the Veterinary School of the University of Pennsylvania, students who wish to specialize in veterinary medicine may pursue a combined six year program of study. The first three years of this program are taken at College Park. The last three years are taken at the Veterinary School of the University of Pennsylvania. After successful completion of the three years' work at the University of Maryland and the first year's work at the University of Pennsylvania, the student receives his B. S. degree from the University of Maryland. After successful completion of the last two years' work at the University of Pennsylvania he receives his degree in Veterinary Medicine from the Veterinary School.

AGRICULTURAL EXPERIMENT STATION

HARRY J. PATTERSON, *Director.*

The agricultural work of the University naturally comprises three fields: research, instruction, and extension. The Agricultural Experiment Station is the research agency of the University, which has for its purpose the increase of knowledge relating to agriculture, primarily for the direct benefit of the farmer. It is also the real source of agricultural information for use in the classroom and for demonstrations in the field.

The Experiment Station work is supported by both State and Federal appropriations. The Hatch Act, passed by Congress in 1887, appropriates $15,000 annually; the Adams Act, passed in 1906, provides $15,000 annually; and the Purnell Act, passed in 1925, provides $60,000 annually. The State appropriation for 1930 was $74,000.

The objects, purposes, and work of the Experiment Stations as set forth by these acts are as follows:

"That it shall be the object and duty of said Experiment Stations to conduct original researches or verify experiments on the physiology of plants and animals; the diseases to which they are severally subject, with the remedies for the same; the chemical composition of useful plants at their different stages of growth; the comparative advantages of rotative cropping as pursued under a varying series of crops; the capacity of new plants or trees for acclimation; the analysis of soils and water; the chemical composition of manures, natural or artificial, with experiments designed to test their comparative effects on crops of different kinds; the adaptation and value of grasses and forage plants; the composition and digestibility of the different kinds of food for domestic animals; the scientific and economic questions involved in the production of butter and cheese; and such other researches or experiments bearing directly on the agricultural industry of the United States as may in each case be deemed advisable, having due regard to the varying conditions and needs of the respective States or Territories."

The Purnell Act also permits the appropriation to be used for conducting investigations and making experiments bearing on the manufacture, preparation, use, distribution, and marketing of agricultural products, and for such economic and sociological investigations as have for their purpose the development and improvement of the rural home and rural life.

The Maryland Station, in addition to the work conducted at the University, operates a sub-station farm of fifty acres at Ridgely, Caroline County, and a farm of about sixty acres at Upper Marlboro for tobacco investigations. Experiments in co-operation with farmers are conducted at many

different points in the State. These tests consist of studies with soils, fertilizers, crops, orchards, insect and plant disease control, and stock feeding.

The results of the Experiment Station work during the past quarter of a century have developed a science of agriculture to teach, and have laid a broad and substantial foundation for agricultural development. The placing of agricultural demonstrations and extension work on a national basis has been the direct outgrowth of the work of the Experiment Stations.

The students taking courses in agriculture are kept in close touch with the investigations in progress.

EXTENSION SERVICE

T. B. SYMONS, *Director.*

The Extension Service is that branch of the University of Maryland, established by Federal and State law, which is designed to assist farmers and their families in promoting the prosperity and welfare of agriculture and rural life. Its work is conducted in co-operation with the United States Department of Agriculture.

The Extension Service is represented in each county of the State by a county agent and a home demonstration agent. Through these agents and its staff of specialists, it comes into intimate contact with rural people and with the problems of the farm and home.

Practically every phase of agriculture and rural home life comes within the scope of the work undertaken by the Extension Service. Farmers are supplied with details of crop and livestock production, and with instructions for controlling diseases and insect pests; they are encouraged and aided in organized effort, helped with marketing problems, and in every way possible assisted in improving economic conditions on the farm.

Rural women are likewise assisted in the problems of the home. They are made acquainted with time- and labor-saving devices, with simpler and easier methods of work, with new knowledge of foods, with new ideas about home furnishing, with practical methods of home sewing and millinery construction, and with such other information as tends to make rural home life attractive and satisfying.

For rural boys and girls, the Extension Service provides a valuable type of instruction in agriculture and home economics through its 4-H Club work. The instruction is incident to actual demonstrations conducted by the boys and girls themselves. These demonstrations, under supervision of the county and home demonstration agents, are the best possible means of imparting to youthful minds valuable information in crop and livestock production and in the household arts. The 4-H Club work, moreover, affords rural boys and girls a very real opportunity to develop the qualities of self-confidence, perseverance, and leadership.

The Extension Service works in accord with all other branches of the University of Maryland and with all agencies of the United States Department of Agriculture. It co-operates with all farm and community organizations in the State which have as their major object the improvement of agriculture and rural life; and it aids in every way possible in making effective the regulatory work and other measures instituted by the State Board of Agriculture.

The Extension Service is gradually developing activities in the general adult educational field.

COLLEGE OF ARTS AND SCIENCES

T. H. TALIAFERRO, *Dean*

The College of Arts and Sciences provides four years of liberal training in biological sciences, economics and business administration, history, languages and literature, mathematics, philosophy, physical sciences, political science, psychology, and sociology. It thus affords an opportunity to acquire a general education which shall serve as a foundation for success in whatever profession or vocation the student may choose. In particular it prepares the ground and lays the foundation for the learned professions of law, medicine, theology, teaching, and even the more technical professions of engineering, public health service, and business administration. Through the aid which it furnishes other colleges of the University it aims to give the students of these colleges the broad outlook necessary for liberal culture and for public service.

This College is a development of the Division of Language and Literature of the Maryland State College, and later of the School of Liberal Arts of the University. In 1921 the School of Liberal Arts, the School of Chemistry, and other departments of physical and biological sciences were combined into the present College of Arts and Sciences, which thus became a standardized College of Arts and Sciences.

Requirements for Admission

The requirements for admission to the College of Arts and Sciences are in general the same as those for admission to the other colleges and schools of the University. See section I, "Entrance."

For admission to the pre-medical curriculum two years of any one foreign language in addition to the regularly prescribed units are required. A detailed statement of the requirements for admission to the School of Medicine and the relation of these to the pre-medical curriculum will be found under the School of Medicine.

Departments

There are eleven university departments under the administrative control of the College of Arts and Sciences: Classical Languages, Chemistry, Economics and Sociology, English, History and Political Science, Mathematics, Modern Languages, Philosophy, Physics, Public Speaking, and Zoology. In addition to these, there are other departments, which, although they are under the control of other colleges of the University, furnish instruction for the College of Arts and Sciences. They are: Bacteriology, Botany, Entomology, Geology, Military Science, Physical Education, and Psychology. Students in this college may also elect courses in the Colleges

of Agriculture, Education, Engineering, and Home Economics as indicated on page 91.

Degrees

The degrees conferred upon students who have met the prescribed conditions for degrees in the College of Arts and Sciences are Bachelor of Arts and Bachelor of Science.

The baccalaureate degree from the College of Arts and Sciences may be conferred upon a student who has satisfied all entrance requirements and has secured credit for a minimum of 127 credit hours, including six hours of basic military science for all able-bodied men students, six hours of physical education for all women students and such male students as are excused from military science, and one hour of library science for all students except those taking the special curricula and the combined courses in which there are other requirements.

Graduates of this college who have completed the regular course are awarded the degree of Bachelor of Arts, except that, upon request, any student who has met the requirements for that degree may be awarded the degree of Bachelor of Science, provided the major portion of the work has been done in the field of science and the application has the approval of the department in science in which the major work has been carried. Students who have elected the combined program of Arts and Medicine may be granted the degree of Bachelor of Arts or Bachelor of Science after the completion of at least three years of the work of this college and the first year of the School of Medicine. Those electing the combined five-year Academic and Nursing Course may be awarded the degree of Bachelor of Science upon the completion of the full course. Those taking the combined course in Arts and Law may be awarded the Bachelor of Arts degree after the completion of three years of the work of this college and one year of full-time law courses, or its equivalent, in the School of Law.

In all of the combined programs the *last* thirty hours of courses in the Arts and Sciences *must* be completed in residence at College Park. Likewise, the *last* thirty hours of the regular course leading to a degree *must* be taken in College Park.

Normal Load

The normal load for the freshman year is sixteen hours a week for the first semester, including one hour of library science and one hour of basic military science or physical education, and seventeen hours for the second semester. The sophomore load is seventeen hours per semester, two hours of which are military science or physical education.

The normal load for the junior and senior years is fifteen hours.

Absolute Maximum

Students whose average grade for the *preceding year* is a B or above may, with the approval of the Dean, be permitted to take additional

hours for credit; *but in no case shall the absolute maximum of 19 hours per week be exceeded.* In the majority of cases it is better for the student to put in four full years in meeting the requirements for a degree than to try to cover the course in a shorter period by taking additional hours.

Freshman-Sophomore Requirements

(a) Before the beginning of the junior year the student not taking a special curriculum must have completed sixty credit hours in basic subjects and from three to five of these hours *must* be taken from each of six of the eight groups described below under major and minor requirements.

(b) Not more than twenty of these hours may be taken in one department.

(c) Freshmen and sophomores may not carry more than twelve hours in one group at a time.

Freshman Program	*Semester* I	II
Composition and Rhetoric (Eng. 1y)	3	3
Foreign Language	3	3
Science (Biological or Physical)	4	4
Reading and Speaking (P. S. 1y)	1	1
Elective	—	2
Basic R. O. T. C. (M. I. 1 y) or Physical Education (Phys. Ed. 1y or 2y and 4y)	1	1
Library Methods (L. S. 1 f)	1	—
Freshman Lectures	—	—
Elect one of the following:		
Introduction to the Social Sciences (Soc. Sci 1 y)		
*Mathematics (Math. 1 f and 2 s)		
Modern European History (H. 1 y)	3	3
History of England and Greater Britain (H. 3 y)		
Elements of Literature (Eng. 2 y)		
Total hours	16	17

Sophomore Year

The curriculum of the sophomore year has been arranged on the basis of a wider election of courses than has heretofore prevailed, but the selection of these courses must be strictly within the limits set forth above under Freshman-Sophomore Requirements.

Major and Minor Requirements

For the purpose of choosing major and minor fields of study, the courses

* Prerequisite to Physics and necessary for students pursuing advanced courses in Chemistry. Math. 3 f and 4 s may be elected by students having the prerequisites.

of instruction open to students in the College are divided into eight groups. During this academic year minors only may be carried in Groups II and VII.

GROUPS

I.	Biological Sciences	Botany Zoology* Bacteriology Entomology
II.	Classical Languages and Literatures	Latin Greek
III.	English Language and Literature	English Comparative Literature Public Speaking
IV.	History and Social Sciences	Economics History Political Science Sociology
V.	Mathematics	Pure Mathematics Applied Mathematics Astronomy
VI.	Modern Languages and Literatures	French German Spanish
VII.	Philosophy, Psychology, and Education	
VIII.	Physical Sciences	Chemistry Geology Physics

(a) A *major* shall consist of not less than 20 and not more than 40 hours in a *university department*, and not less than 30 and not more than 60 in the *group* including the principal department.

(b) A *minor* shall consist of not less than 20 and of not more than 30 credit hours in a *group* related to the *major group*, not more than 25 of which shall be in any one department. Any hours taken in excess of this maximum in the *minor group* will not count as credit hours toward a degree. The *minor* must have the recommendation of the head of the principal department in the *major group*.

(c) At the beginning of the junior year each student (except those following prescribed curricula) must select a major in one of the groups as indicated in (a) and before graduation must complete one major and one minor. In certain exceptional cases two minors may be allowed, but in no case will any hours above the maximum of 30 in either minor be counted for credit toward a degree.

* Students selecting Zoology as the principal department in the major group must take a course of four semester credit hours in General Botany or its equivalent.

(d) The courses constituting a major must be chosen under the supervision of the faculty of the department in which the major work is done, and *must* include a substantial number of courses *not open* to freshmen and sophomores.

Specific Requirements for Graduation

Before graduation the following specific requirements must be completed by all students except those pursuing certain prescribed curricula.

A. Military Science or Physical Education, six hours.

B. Library Science, one hour.

C. Group Requirements:

I. *English*—The required course in Composition and Rhetoric and two hours of Public Speaking. In addition at least a one-semester course must be taken in some form of advanced composition or in literature.

II. *Foreign Languages and Literature*—If a student enters the University with but two units of language or less he must pursue the study of foreign language until at least fourteen additional semester credits have been acquired. If three or more units of foreign language are offered for entrance the student must continue the study of foreign language until, at the discretion of the dean, six or eight additional semester credits have been satisfactorily completed. Students who offer two units of a foreign language for entrance, but whose preparation is not adequate for the second year of that language, receive only half credit for the first year's course.

III. *History and the Social Sciences*—At least twelve hours of history, economics, political science, or sociology, which shall include at least a year's course in history other than State history. American History must be elected if it has not been taken in high school.

IV. *Mathematics and Natural Sciences*—A minimum requirement of twelve semester hours in this group, of which at least one year shall be devoted to a basic natural science.

V. *Education, Philosophy, and Psychology*—Six hours, with at least one course in Philosophy or Psychology.

Completion of Specific Requirements

It is strongly recommended that students complete as much of the above specific prescribed work by the end of the sophomore year as can be taken without interfering with the general Freshman-Sophomore Requirements. All of the specific requirements for graduation must be met before a student may be admitted to full senior standing.

Junior-Senior Requirements

The work in the junior and senior years is elective within the limits set by the Major and Minor Requirements and the completion of the Specific Requirements as outlined above.

Students With Advanced Standing

Students entering the junior year of the College of Arts and Sciences with advanced standing from other universities or from other colleges of this university will be required to meet the requirements respecting studies of the first two years only to the extent of their deficiencies in credits in Arts and Science subjects for full junior standing. Scholarship requirements as outlined in Section I of this catalogue will apply to all courses offered for advanced standing.

Electives in Other Colleges and Schools

A limited number of courses may be counted for credit in the College of Arts and Sciences for work done in other colleges of the University.

The number of semester hours accepted from the various colleges is as follows:

College of Agriculture—Fifteen.*
College of Education—Twenty.
College of Engineering—Fifteen.
College of Home Economics—Twenty.
School of Law—Thirty in combined program.
School of Medicine—Thirty in combined program.
School of Nursing—Three years in combined program.

Student Responsibility

The individual student will be held responsible for the selection of the courses and the major in conformity with the preceding regulations. The student will also be held responsible for a knowledge of the general Academic Regulations.

Advisers

Each student may be assigned to a member of the faculty as his personal adviser, who will assist him in the selection of his courses, the arrangement of his schedule, and any other matters on which he may need assistance or advice. The faculty adviser acts in this capacity as assistant to and representative of the Dean, who is charged with the execution of all of the foregoing rules and regulations. The faculty adviser of juniors and seniors is the Head of the principal department of the group which has been selected for a major.

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* Students electing Botany, Bacteriology, or Entomology as the principal department in the major group are not limited to fifteen hours.

SPECIAL CURRICULA

Special curricula are provided in Chemistry and Business Administration, and for the Pre-Medical, Pre-Dental, and Pre-Law courses. They are also provided for the combined programs in Arts and Nursing and Arts and Law.

CHEMISTRY

The Department of Chemistry includes the divisions of Inorganic, Organic, Analytical, Agricultural, Industrial, and Physical Chemistry, together with the State Control Work.

Courses in these several branches of the science are arranged with a view to the following:

(1) Contributing toward the liberal education of the Arts student;

(2) Laying the scientific foundation necessary for the professions of medicine, dentistry, pharmacy, engineering, agriculture, etc.;

(3) Offering training for the pursuit of chemistry as a career.

It should be noted that the chemical curricula hereinafter outlined are designed primarily to insure adequate instruction in the fundamentals of the science. At the same time it has been considered desirable to preserve as high a degree of flexibility as possible in order to afford the student who has a definite end in view an opportunity to fit his course to his actual needs. In general it may be said that the curricula offered prepare students to enter the following fields:

1. *Industrial Chemistry*—Curriculum II furnishes basic training, which, in conjunction with subsequent industrial experience or graduate work, should prepare the student to undertake plant control, plant management, or plant development work.

2. *Agricultural Chemistry*—Curriculum III may be adjusted, through the intelligent selection of electives, to fit the student for work in agricultural experiment stations, soil bureaus, geological surveys, food laboratories, industries engaged in the processing or handling of food products, and the fertilizer industries.

3. *General Chemistry*—Curriculum I offers a more liberal selection of subjects in The Sciences and Arts, and, through co-operation with the College of Education, may be supplemented with the work in Education necessary to obtain a State high-school teacher's certificate. To prepare for college teaching, graduate work leading to a higher degree is necessary.

4. *Chemical Research*—Preparation for research in chemistry is also based upon Curricula I, II, and III. It is advisable that elections be made largely from courses in chemistry and the allied sciences. Graduate work is essential (See Graduate School).

5. *State Control Laboratory*—The State Control Laboratory is authorized to enforce the State Regulatory Statutes controlling the purity and truthful labeling of all feeds, fertilizers, and limes that are offered or exposed for sale in Maryland. The specific laws involved are the Feed Stuff

Law of Maryland, in effect June 1, 1920; The Fertilizer Law of Maryland, in effect January 1, 1932; and the Lime Inspection Law of Maryland, in effect June 1, 1912.

I. GENERAL CHEMISTRY

	Semester I	Semester II
Freshman Year		
Composition and Rhetoric (Eng. 1y)	3	3
Modern Language (French or German)	3	3
Algebra and Plane Trigonometry (Math. 1f and 2 s)	3	3
General Chemistry (Chem. 1y)	4	4
History (H. 1y, H. 2y, or H. 3y)	3	3
Basic R. O. T. C. (M. I. 1y) or Physical Education (Phys. Ed. 1y, or 2y and 4y)	1	1
Freshman Lectures	—	—
	17	17
Sophomore Year		
Qualitative Analysis (Chem. 2y)	3	3
Elementary Organic Chemistry (Chem. 8Ay and 8By)	3	3
Modern Language (French or German)	3	3
Calculus and Plane Analytic Geometry (Math. 5y)	3	3
Advanced Composition and Rhetoric (Eng. 3f and 4 s)	2	2
Reading and Speaking (P. S. 1y)	1	1
Basic R. O. T. C. (M. I. 2y) or Physical Education (Phys. Ed. 3y or 6y and 8y)	2	2
	17	17
Junior Year		
Quantitative Analysis (Chem. 6y)	4	4
Advanced Organic Chemistry (Chem. 116y and 117y)	3	3
General Physics (Phys. 1y)	4	4
Modern Language (French or German)	1	1
Electives (Arts or Education)	3	3
	15	15
Senior Year		
Physical Chemistry (Chem. 102y)	5	5
Principles of Economics (Econ. 3y)	3	3
Organic Chemistry Laboratory (Chem. 118y)	1	1
Electives (Arts or Education)	6	6
	15	15

II. INDUSTRIAL CHEMISTRY

	Semester I	Semester II
Freshman Year		
Composition and Rhetoric (Eng. 1y)	3	3
Modern Language (French or German)	3	3
Trigonometry; Adv. Algebra; Analytic Geometry (Math. 3f and 4 s)	5	5
General Chemistry (Chem. 1y)	4	4
Reading and Speaking (P. S. 1y)	1	1
Basic R. O. T. C. (M. I. 1y) or Physical Education (Phys. Ed. 1y or 2y and 4y)	1	1
	17	17
Sophomore Year		
Calculus; Elem. Differential Equations (Math. 6y)	5	5
Qualitative Analysis (Chem. 2y)	3	3
Elementary Organic Chemistry (Chem. 8Ay and 8By)	3	3
Modern Language (French or German)	3	3
Advanced Composition and Rhetoric (Eng. 3f and 4 s)	2	2
Basic R. O. T. C. (M. I. 2y) or Physical Education (Phys. Ed. 3y or 6y and 8y)	2	2
	18	18
Junior Year		
Quantitative Analysis (Chem. 6y)	4	4
Advanced Organic Chemistry (Chem. 116y and 117y)	3	3
General Physics (Phys. 2y)	5	5
Modern Language (French or German)	1	1
Electives (Arts or Education)	2	2
	15	15
Senior Year		
Physical Chemistry (Chem. 102y)	5	5
Industrial Chemistry (Chem. 110y)	3	3
Organic Chemistry Laboratory (Chem. 118y)	1	1
Principles of Economics (Econ. 3y)	3	3
Electives (Arts or Education)	3	3
	15	15

III. AGRICULTURAL CHEMISTRY

	Semester I	Semester II
Freshman Year		
Composition and Rhetoric (Eng. 1y)	3	3
Algebra and Plane Trigonometry (Math. 1f and 2 s)	3	3
General Chemistry (Chem. 1y)	4	4
General Zoology (Zool. 1f)	4	—
General Botany (Bot. 1 s)	—	4
Reading and Speaking (P. S. 1y)	1	1
Basic R. O. T. C. (M. I. 1y) or Physical Education (Phys. Ed. 1y or 2y and 4y)	1	1
	16	16
Sophomore Year		
Calculus and Plane Analytic Geometry (Math. 5y)	3	3
Elementary Organic Chemistry (Chem. 8Ay and 8By)	3	3
Qualitative Analysis (Chem. 2y)	3	3
Modern Language (French or German)	3	3
Plant Physiology (Plt. Phys. 1f)	4	—
General Bacteriology (Bact. 2 s)	—	4
Basic R. O. T. C. (M. I. 2y) or Physical Education (Phys. Ed. 3y or 6y and 8y)	2	2
	18	18
Junior Year		
General Physics (Phys. 1y)	4	4
Quantitative Analysis (Chem. 6y)	4	4
Advanced Organic Chemistry (Chem. 116y and 117y)	3	3
Modern Language (French or German)	3	3
Advanced Composition and Rhetoric (Eng. 3f and 4 s)	2	2
	16	16
Senior Year		
Physical Chemistry (Chem. 102y)	5	5
Organic Chemistry Laboratory (Chem. 118y)	1	1
Modern Language (French or German)	1	1
General Physiological Chemistry (Chem. 108 s)	—	4
Fundamentals of Economics (Econ. 5f)	3	—
Electives	5	4
	15	15

BUSINESS ADMINISTRATION

The aim of this curriculum is to afford those who select business as a career a training in the general principles of business. The work is based on the view that through a study of the best business methods valuable mental discipline and knowledge of business technic may be obtained. Business demands men who are broadly trained, and not men narrowly drilled in routine. Hence two years of liberal college training are very desirable for students intending to enter business. The curriculum provides for this broad cultural background as well as for the special training in business subjects.

	Semester I	Semester II
Freshman Year		
Composition and Rhetoric (Eng. 1y)	3	3
Modern Language	3	3
Science (Chemistry, Zoology, or Botany)	4	4
Introduction to the Social Sciences (Soc. Sci. 1y)	3	3
Algebra and Plane Trigonometry (Math. 1f and 2 s)	3	3
Basic R. O. T. C. (M. I. 1y) or Physical Education (Phys. Ed. 1y or 2y and 4y)	1	1
Freshman Lectures	—	—
	17	17
Sophomore Year		
American History (H. 2y)	3	3
Economic Geography and Industry (Econ. 1f)	3	—
History of World Commerce (Econ. 2 s)	—	3
Principles of Economics (Econ. 3y)	3	3
Business English (Eng. 17f and 18 s)	2	2
Business Organization and Operation (Econ. 7f)	3	—
Elements of Psychology (Psych. 1 s)	—	3
Reading and Speaking (P. S. 1y)	1	1
Basic R. O. T. C. (M. I. 2y) or Physical Education (Phys. Ed. 3y or 6y and 8y)	2	2
	17	17
Junior Year		
*Introductory Accounting (Econ. 109y)	3	3
Business Law (Econ. 107f and 108 s)	3	3
Money and Credit (Econ. 101f)	2	—
Banking (Econ. 102 s)	—	2
Mathematical Theory of Investment (Math. 101f)	3	—
Elements of Statistics (Gen. 114 s or Math 102 s)	—	3
Modern Language	1	1
*Electives	3	3
	15	15
Senior Year		
Corporation Finance (Econ. 103f)	2	—
Investments (Econ. 104 s)	—	3
Insurance (Econ. 105f)	2	—
Public Utilities (Econ. 113f)	2	—
Public Finance (Econ. 114 s)	—	3
*Electives	9	9
	15	15

* Students who wish to specialize in accounting will be permitted, with the consent of the instructor, to take this course in their sophomore year.

THE PRE-MEDICAL CURRICULUM

The minimum requirement for admission to the School of Medicine of the University of Maryland is 60 semester hours of prescribed courses, exclusive of military drill or physical education. The subjects and hours prescribed by the Council on Medical Education of the American Medical Association are covered in the first two years of the Pre-Medical Curriculum. In view of the fact, however, that at least five times as many students, most of whom have a baccalaureate degree, apply for admission to the School of Medicine of the University as can be accommodated, students are strongly urged to complete the full three-year curriculum before making application for entrance.

Preference will be given students requesting entrance to the School of Medicine of the University who present the credits obtained by the successful completion of the three-year curriculum or its equivalent of 97 semester hours. For recommendation by the Pre-Medical Committee a student must complete the curriculum with an average grade of B or above, and must also satisfy the Committee that he is qualified by character and scholarship to enter the medical profession. Only in exceptional cases will students who have been less than two years in residence at College Park be recommended for admission to the School of Medicine.

Another advantage the three-year curriculum offers over the minimum requirement of sixty-seven hours is that the students successfully completing this program may, on the recommendation of the Dean of the School of Medicine, be awarded the degree of Bachelor of Science after the completion of the first year's work in the Medical School. This combined program of seven years leads to the degree of Doctor of Medicine upon the completion of the full course. The first three years are taken in residence

* Electives must be chosen first to fulfill the Specific Requirements for Graduation; then from approved courses in the Colleges of Arts and Sciences, Engineering, Education, and Agriculture. In the senior year at least two hours in each semester must be elected in Economics.

at College Park, and the last four in Baltimore in the School of Medicine. At least two years of residence at College Park is necessary for students transferring from other colleges and universities who wish to become candidates for the combined degrees.

For requirements for admission see Section I, "Entrance."

	Semester I	Semester II
Freshman Year		
Composition and Rhetoric (Eng. 1y)	3	3
Algebra and Plane Trigonometry (Math. 1f and 2 s)	3	3
Elements of Zoology (Zool. 2f and 3 s)	4	4
General Chemistry (Chem. 1y)	4	4
Reading and Speaking (P. S. 1y)	1	1
Basic R. O. T. C. (M. I. 1y) or Physical Education (Phys. Ed. 1y or 2y and 4y)	1	1
Library Methods (L. S. 1 s)	—	1
Freshman Lectures	—	—
	16	17
Sophomore Year		
General Physics (Phys. 1y)	4	4
Elementary Organic Chemistry (Chem. 8 Ay and 8 By)	3	3
Modern Language (French or German)	3	3
Comparative Vertebrate Morphology (Zool. 8f)	4	—
Elements of Psychology (Psych. 1s)	—	3
Advanced Composition and Rhetoric (Eng. 3f and 4 s)	2	2
Basic R. O. T. C. (M. I. 2y) or Physical Education (Phys. Ed. 3y or 6y and 8y)	2	2
	18	17
Junior Year		
Rural Sociology (Soc. 101f)	2	—
Urban Sociology (Soc. 102 s)	—	2
Elementary Physical Chemistry (Chem. 10y)	3	3
Embryology (Zool. 101s)	—	4
General Physiological Chemistry (Chem. 108 s)	—	4
Quantitative Analysis (Chem. 4f)	4	—
General Bacteriology (Bact. 1f)	4	—
Electives (Arts or Education)	2	2
	15	15

Senior Year

The curriculum of the first year of the School of Medicine. The students also may elect the fourth year's work from advanced courses offered in the College of Arts and Sciences, provided the Specific Requirements for Graduation have been met.

PRE-DENTAL CURRICULUM

Students taking one year of work in the College of Arts and Sciences may be admitted to the second year of the five-year course of the School of Dentistry, provided the following program of studies has been followed:

	Semester I	Semester II
Freshman Year		
Composition and Rhetoric (Eng. 1y)	3	3
Elements of Zoology (Zool. 2f and 3 s)	4	4
Algebra and Plane Trigonometry (Math. 1f and 2 s)	3	3
General Chemistry (Chem. 1y)	4	4
Reading and Speaking (P. S. 1y)	1	1
Library Methods (L. S. 1 s)	—	1
Basic R. O. T. C. (M. I. 1y) or Physical Education (Phys. Ed. 1y or 2y and 4y)	1	1
Freshman Lectures	—	—
	—	—
	16	17

If a second year of pre-dental education be completed in the College of Arts and Sciences, it should include the following courses: General Physics (Phys. 1y) and Elementary Organic Chemistry (Chem. 8f or s). The remainder of the program will be made up of approved electives.

FIVE-YEAR COMBINED ARTS AND NURSING CURRICULUM

The first two years of this course are taken in the College of Arts and Sciences at College Park. If students enter this combined program with advanced standing, at least the second full year of the course must be completed in College Park.

The remaining three years are taken in the School of Nursing in Baltimore or in the Training School of Mercy Hospital, Baltimore. In addition to the Diploma in Nursing the degree of Bachelor of Science may, upon the recommendation of the Director of the School of Nursing, be granted at the end of the five-year course. Full details regarding this course may be found in the section of the catalogue dealing with the School of Nursing.

	Semester I	Semester II
Freshman Year		
Composition and Rhetoric (Eng. 1y)	3	3
Foreign Language	3	3
General Zoology (Zool. 1f)	4	—
General Chemistry (Chem. 1y)	4	4
Elements of Psychology (Psych. 1 s)	—	3
Reading and Speaking (P. S. 1y)	1	1

	Semester I	Semester II
Physical Education (Phys. Ed. 2y and 4y)	1	1
Elective	—	2
Freshman Lectures	—	—
	—	—
	16	17
Sophomore Year		
American History (H. 2y)	3	3
Advanced Composition and Rhetoric (Eng. 3f and 4 s)	2	2
Principles of Sociology (Soc. 1f)	3	—
Fundamentals of Economics (Econ. 5 s)	—	3
Elements of Organic Chemistry (Chem. 12f)	4	—
Elementary Foods (H. E. 31y)	3	3
†Nutrition (H. E. 132 s)	—	2-3
Child Nutrition (H. E. 136 s)	—	2-1
Physical Education (Phys. Ed. 6y and 8y)	2	2
	—	—
	17	17

COMBINED PROGRAM IN ARTS AND LAW

The Law School of the University requires two years of academic credit for admission to the school, or sixty-seven semester hours of college credit.

The University offers a combined program in Arts and Law, leading to the degrees of Bachelor of Arts and Bachelor of Laws. Students pursuing this combined program will spend the first three years in the College of Arts and Sciences at College Park. During this period they will complete the prescribed curriculum in pre-legal studies as outlined below, and must complete the Specific Requirements for Graduation as indicated elsewhere. If students enter the combined program with advanced standing, at least the third full year's work must be completed in residence at College Park. Upon the successful completion of one year of full-time law courses in the School of Law in Baltimore, the degree of Bachelor of Arts may be awarded on the recommendation of the Dean of the School of Law. The degree of Bachelor of Laws will be awarded upon the completion of the combined program.

Freshman Year	Semester I	Semester II
Composition and Rhetoric (Eng. 1y)	3	3
Science or Mathematics	4-3	4-3
History of England and Greater Britain (H. 3y)	3	3
Introduction to the Social Sciences (Soc. Sci. 1y)	3	3
Latin or Modern Language	4-3	4-3

† H. E. 132 s is the equivalent of 131f, which is repeated the second semester for Pre-Nursing students.

	Semester I	Semester II
Basic R. O. T. C. (M. I. 1y) or Physical Education (Phys. Ed. 1y or 2y and 4y)	1	1
Freshman Lectures	—	—
	16-18	16-18
Sophomore Year		
Expository Writing (Eng. 5f and 6 s)	2	2
Principles of Economics (Econ. 3y)	3	3
American History (H. 2y)	3	3
Government of the United States (Pol. Sci. 2f)	3	—
Elements of Psychology (Psych. 1s)	—	3
Reading and Speaking (P. S. 1y)	1	1
Basic R. O. T. C. (M. I. 2y) or Physical Education (Phys. Ed. 3y or 6y and 8y)	2	2
*Electives	3	3
	—	—
	17	17

Junior Year

Largely electives, including the completion of the Specific Requirements for Graduation as outlined on page 90.

Senior Year

First year of regular law course.

Students who are unable to take the combined program in Arts and Law may fulfill the entrance requirements of the Law School by completing the first two years of pre-legal studies as outlined in the above combined course.

* Electives should be in English, History, Latin or Modern Languages, Economics or Political Science, or some of the Specific Requirements for Graduation.

MISCELLANEOUS

LIBRARY SCIENCE

A course in Library Methods is required of students registered in the College of Arts and Sciences.

This course is intended to help students use the library with greater facility. Instruction will be given by practical work with the various catalogues, indexes, and reference books. This course considers the general classification of the library according to the Dewey system. Representative works of each division are studied in combination with the use of the library catalogue. Attention is given to periodical literature, particularly that indexed in the Reader's Guide and in other periodical indexes; and to various much used reference books, which the student will find helpful throughout the college course.

MUSIC

The Department of Music serves students of the University of two general classes: those who make a specialty of the subject with a view to becoming musical artists or music teachers, and those who pursue musical studies for purposes of enjoyment and general culture. For the former group extensive private instruction is provided, with attention to technical development along particular lines; while as large provision as possible is made for all in the various club activities and in public lectures and recitals.

For courses in music see Section III, Courses of Instruction.

Voice

Courses in voice culture, covering a thorough and comprehensive study of tone production, are offered. These are based on the Italian method of singing.

The work required to develop a singer is begun with the most fundamental principles of correct breathing. Scale and arpeggio exercises; all intervals; the portamento, legato, and staccato; the trill; and other embellishments to develop the technique of singing are, through the medium of vocal exercises arranged by the greatest authorities on the voice, studied under the careful supervision of the instructor.

The study of songs and ballads is adapted to the ability and requirements of each singer, a thorough training in diction and phrasing being given through the medium of sacred and secular ballads.

Such work may be followed by a study of the oratorio and the opera.

Opportunities are afforded all voice pupils who are capable to make public appearances in the regular pupils' recitals as well as in the churches of the community.

Tuition

One lesson per week, term of eighteen weeks, $24.

The above price for lessons in Voice is offered to students of the University who are pursuing regular academic courses. Terms for private instruction outside the University may be secured from the instructor in Voice.

Piano

Elementary piano courses. Work for beginners, based on the Leschetizky method.

Advanced piano courses. The college work in piano presupposes three years of preparatory study of the piano, part or all of which may be taken at the University.

Lessons are taken twice a week. A four-year college course is as follows:

First Year—Technical studies based on the modern weight and rotary method: Heller Etudes; Sonatas of Haydn, Mozart, and Beethoven; selections from classic and modern composers.

Second Year — Bach Preludes; Concertos by classic masters; Jensen Etudes; selections from classic, romantic, and modern composers.

Third Year—Leschetizky technique; Chopin Preludes and Waltzes; Bach Inventions; Mendelssohn Concertos; Beethoven Sonatas; selections from romantic and modern composers.

Fourth Year—Leschetizky technique; Chopin Etudes; Bach Well-Tempered Clavichord; Sonatas and Concertos by Greig, McDowell, Schutt, Beethoven, etc.; concert pieces by modern and romantic composers.

Tuition

One lesson per week, term of eighteen weeks, $24.

Note.—Music tuitions are due in advance. Ten per cent. is added to all tuitions not paid in advance.

COLLEGE OF EDUCATION

WILLARD S. SMALL, *Dean.*

The College of Education is organized to meet the needs of the following classes of students: (1) undergraduate students preparing to teach the cultural and the vocational studies in the high schools; (2) advanced students preparing to become high school principals, elementary school principals, educational supervisors, attendance officers, and school administrators; (3) those preparing for educational work in the trades and industries; (4) county agents, home demonstrators, boys' and girls' club leaders, other extension workers, and social workers; (5) students whose major interest is in other fields, but who desire courses in education for their informational and cultural values.

The Summer School, although organically distinct from the College of Education, is administered by the Dean of the College of Education, and is in effect an administrative division of the College.

Departments

The instructional work of the College of Education is conducted by the following functional divisions: History and Principles of Education, Educational Psychology, Methods in High School Subjects, Agricultural Education, Home Economics Education, Industrial Education, and Physical Education.

Requirements for Admission

The requirements for admission to the College of Education are in general the same as for the other colleges of the University. See Section I, "Entrance."

For additional requirements for admission to the curricula in Agricultural Education and Home Economics Education, see page —— and page ——, respectively.

Admission of Normal School Graduates

Graduates of the Maryland Normal Schools and other accredited normal schools whose scholastic records in the normal school were satisfactory, will be admitted to advanced standing and classified provisionally in the appropriate class. The exact amount of credit that is allowed for the normal school work depends upon the objectives of the student. Graduates of the two-year normal school curriculum, in most cases, may satisfy the requirements for a degree by two full college years and one summer session in the University.

Degrees

The degrees conferred upon students who have met the conditions prescribed for a degree in the College of Education are Bachelor of Arts and

Bachelor of Science. Upon completion of 128 credits in conformity with the requirements specified under "curricula" and in conformity with general requirements of the University, the appropriate degree will be conferred.

Teachers' Special Diploma

The degrees granted for work done in the College of Education indicate primarily the quantity of work completed. The teachers' special diploma certifies to the professional character of such work. Teachers' special diplomas will be granted only to those who attain a grade of C or better in supervised teaching and whose professional interest, personal qualities, and character give promise of success in teaching.

Teachers' special diplomas are granted in the Biological Sciences, Chemistry, English, French, General High School Science, History and Social Sciences, Mathematics, Mathematics-Physics, Vocational Agriculture, Vocational Home Economics, Industrial Education, and Physical Education.

Facilities

In addition to the general facilities offered by the University, certain important supplementary facilities are available.

Supervised Teaching. Actual experience in teaching under competent supervision is of basic importance in the preparation of teachers. Since 1920 a co-operative arrangement with the Prince George's County School authorities has been in effect whereby students preparing to teach get this experience in the Hyattsville High School under instructors employed and paid jointly by the County School Board and the University.

Observation. The observation of teaching necessary for efficient teacher training is conducted in Washington and in nearby Maryland schools. The number, variety, and nearness of these schools provide ample and unusual opportunities for observation of actual classroom situations.

Other Facilities in Washington. The Library of Congress, the Library of the U S. Office of Education, and the special libraries of other Government offices are easily accessible. The information services of the National Education Association, the American Council on Education, the U. S. Office of Education, the Federal Board for Vocational Education, and of other institutions, public and private, are available to students.

Curricula

The departments of the College of Education fall into two main groups: General Education and Vocational Education. Two types of curricula are offered, corresponding with these two major groupings.

General Education. The first of these is designed to prepare teachers of the academic and scientific subjects and the special subjects in high schools. The basic requirements are fixed and definite, but the student may select from a number of subjects the major and minor subjects in which he

expects to qualify for teaching. The student may qualify for the degree either of Bachelor of Arts or of Bachelor of Science, depending upon his election of major subject.

The requirements for majors and minors correspond in general with the requirements of the College of Arts and Sciences, but are modified in some respects to adapt them better to the needs of prospective teachers and to satisfy the regulations of the State Department of Education in regard to "the number of college credits required in any two or more subjects which are to be placed on a high school teachers' certificate."

Some of the most common combinations of academic subjects in the high schools of the State are: English and History; English and French; History and French; Mathematics and one or more of the high school Sciences.

Combinations of academic and scientific subjects with Physical Education, Home Economics, Industrial Arts, and Music are very desirable.

Vocational Education. The curricula in Vocational Education are designed for the definite purpose of preparing teachers of agriculture, home economics, and trade and industrial Education. As the University of Maryland is the institution designated by the State Board of Education for the training of teachers of vocational agriculture, home economics, and trades and industries under the provisions of the Smith-Hughes Vocational Educational Act, the curricula in this class have been organized to meet the objectives set up in the act and in the interpretations of the Federal Board of Vocational Education and the State Board of Education. These curricula lead to the degree of Bachelor of Science.

Professional Requirements

The Education courses scheduled in the freshman and sophomore years are orientation courses. The professional courses are given only in the junior and senior years. The minimum requirement for the professional courses is 16 semester hours and includes the following courses: Educational Psychology, Technic of Teaching, Special Methods and Supervised Teaching, and Principles of Secondary Education. *To be eligible to enter the professional courses in the junior year, a student must rank academically in the upper four-fifths of the class at the end of the sophomore year. Continuance in such courses will be contingent upon the student's remaining in the upper four-fifths of his class in subsequent semester revisions of class standing.*

Students who by reason of health deficiencies, of weakness in spoken and written English, and of unfavorable personal traits are unlikely to succeed as teachers will be advised to transfer to other curriculums.

The special requirements of each curriculum are shown in the tabular statements of the curricula for Arts and Science Education, Agricultural Education, and Home Economics Education.

Certification of High School Teachers

The State Department of Education certifies to teach in the approved high

schools of the State only such graduates of approved colleges as have satisfactorily fulfilled subject-matter and professional requirements. Specifically it limits certification to such graduates as "rank academically in the upper four-fifths of the class and who make a grade of C or better in practice teaching."

Guidance in Registration

All students wishing to prepare for teaching should consult the Dean of the College of Education regarding possible combinations and the arrangement of their work. At the time of matriculation each student should make a provisional choice of the subjects which he will prepare to teach and secure the advice and approval of the heads of departments which offer these subjects. Definite choice should be made at the beginning of the sophomore year. The advice and approval of the appropriate head of department should be secured.

It is advisable for students who purpose to teach to register in the College of Education, in order that they may have continuously the counsel and guidance of the faculty which is directly responsible for their professional preparation. It is permissible, however, for a student to register in that college which in conjunction with the College of Education offers the majority of the courses he will pursue in satisfying the requirements of the curriculum he elects.

The teachers' special diploma will be awarded only to the student who shall have fulfilled all of the requirements of the curriculum he elects. Students in other colleges desiring to qualify for the teachers' special diploma should consult with the Dean of the College of Education *at the beginning of the sophomore year* in order to plan satisfactorily their subsequent programs. Adjustments may be made as late as the beginning of the junior year. *It is practically impossible to make adjustments later than that on account of the sequence of professional subjects in the junior and senior years.*

ARTS AND SCIENCE EDUCATION

Students electing this curriculum may register either in the College of Education or the College of Arts and Sciences. In any case they will register with the College of Education for the teachers' special diploma.

The teachers' special diploma will be awarded only to those students who have fulfilled all the requirements of this curriculum.

General Requirements

In addition to Military Science or Physical Education, required of all students in the University, the following requirements must be fulfilled by all candidates for degrees in this curriculum, preferably by the end of the sophomore year:

(1) Composition and Rhetoric (Eng. 1y), 6 semester hours, and in addition not less than 4 semester hours in English Language or Literature.

(2) Reading and Speaking (P. S. 1y), 2 semester hours.

(3) Two years of foreign language, if the student enters with less than three years of foreign language; one year, if he enters with three years. No foreign language is required of students who enter with four or more years of foreign language.

(4) Nine semester hours of history and the social sciences, of which six must be history.

(5) Eleven hours of natural science or of natural science and mathematics, of which eight semester hours must be in laboratory science and must include General Zoology (Zool. 1 f or s).

	Semester	
Freshman Year	*I*	*II*
Composition and Rhetoric (Eng. 1y)	3	3
College Aims (Guid. 1y)	1	1
Reading and Speaking (P. S. 1y)	1	1
R. O. T. C. (M. I. 1y) or Physical Education (Phys. Ed. 2y and 4y)	1	1
*Foreign Language	3	3
Science (Biological or Physical)	4	4
(One from the following groups)	3-4	3-5
History, Mathematics, Science, Foreign Language.	—	—
	16-17	16-18
Sophomore Year		
Introduction to Teaching (Ed. 2f and 3 s)	2	2
Basic R. O. T. C. (M. I. 2y) or Physical Education (Phys. Ed. 6y and 8y)	2	2
†Foreign Language	3	3
Electives	10-11	10-11
	—	—
	17-18	17-18
Junior Year		
Educational Psychology (Ed. 4f)	3	—
Technic of Teaching (Ed. 5 s)	—	3
Electives	13	13
	—	—
	16	16
Senior Year		
Special Methods and Supervised Teaching (See Methods in High School Subjects: Section III, p. 206	4	3
Principles of Secondary Education (Ed. 103 s)	—	3
Electives	11	9
	—	—
	15	15

* Except students entering with four or more units of language.
† For students entering with less than three units of language.

Special Requirements

The semester hour requirements detailed below for each of the subjects cover all of the requirements of the State Board of Education (By-law 30 revised) in regard to the number of college credits in any two or more subjects which are to be placed on the high school teachers' certificate.

No student will be permitted to do practice teaching who has not met all previous requirements.

English. For a major in English 36 semester hours are required as follows:

Composition and Rhetoric	6 semester hours
Advanced Composition and Rhetoric	4 semester hours
Reading and Speaking	2 semester hours
Literature	18 semester hours
Electives	6 semester hours
Total	36

For a minor in English 24 semester hours are required:

Composition and Rhetoric	6 semester hours
Advanced Composition and Rhetoric	4 semester hours
Reading and Speaking	2 semester hours
Literature	12 semester hours
Total	24

Students with a major or minor in English must complete English 1y, Public Speaking 1y, Advanced Composition and Rhetoric, and History of English Literature by the end of the junior year.

Additional courses required in the major group are The Drama or Shakespeare and 6 hours from the following: The Novel, English and American Essays, Modern Poets, Victorian Poets, Poetry of Romantic Age, American Literature, and Comparative Literature. (The electives for the minor in English must be from this group.)

History and Social Sciences. For a major in this group 30 semester hours are required as follows:

History	18 semester hours
Economics or Sociology	6 semester hours
Electives	6 semester hours

For a minor, the same requirements less the electives.

Students with a major or minor in History and Social Sciences must complete Modern European History and American History by the end of the junior year.

Modern Languages. French is the only modern language for which supervised teaching is available. For a major in Modern Languages 30 semester hours are required if the major is confined to one language; if two languages are included in the major, 40 semester hours. If the major includes two languages, at least 22 semester hours must be in French. A

minor requires 24 semester hours if confined to one language; 30 semester hours if two languages are included. If both major and minor are taken in modern language, the major requires 30, and the minor, 24 semester hours.

At least 18 hours of a major or minor in modern language must be completed by the end of the junior year if the election is confined to one language; 30 hours if two languages are included.

A major or minor in French must include French 8f, French 9s, and at least one course of the 100 group.

A major or minor in Spanish must include Spanish 6f, Spanish 7s, and at least one course of the 100 group.

A major or minor in German must include German 4f and 5s or German 6f and 7s, and at least one course of the 100 group.

Mathematics. Open to students who enter with solid geometry and algebra beyond quadratics. Twenty semester hours including Math. 3f, Math 4s, and Math. 6y must be completed by the end of the junior year. Additional courses to make up the remaining 10 semester hours will be chosen from those listed in Section III for advanced undergraduates and graduates. The requirements for a minor are satisfied by the 20 hours listed above; or by 20 hours of the mathematics listed in the Mathematics-Physics major.

Mathematics-Physics. Open to students who enter without solid geometry and algebra beyond quadratics. Thirty-four semester hours are required. Of these, 22 must be completed by the end of the junior year, as follows: Math. 1f; Math. 2s; Math. 7s; Math. 5y; Phys. 1y. The remaining 12 hours may be elected in the junior and senior years as follows: Phys. 103f; Phys. 104s; and 6 hours from those listed in Section III for advanced undergraduates and Astronomy 1s. If state certification in physics is desired and the student did not have physics in the high school, an additional 4 hours of physics must be elected.

Sciences. Both majors and minors are offered in Chemistry, Physics, and the Biological Sciences. The minimum requirement for a major is 30 semester hours; for a minor, 20 semester hours. In case of a major, not less than 20 semester hours must be completed by the end of the junior year.

In satisfaction of the regulation of the State Department of Education for certification in General High School Science, a major and a minor are offered, consisting of a combination of Chemistry, Physics, and Biological Sciences. A minor consists of the elementary courses in Chemistry, Physics, and Biology (Zoology and Botany) and enough additional courses to make 12 hours in one of the three subjects. A major consists of a total of 34 semester hours, including the requirements of the minor. If major and minor were taken in (1) General Science and (2) Chemistry, Physics, or Biology, the same credits may be counted towards both, provided that the total number of semester hours in natural science is not less than 52.

AGRICULTURAL EDUCATION

The objectives of the curricula in Agricultural Education are the teaching of secondary vocational agriculture, the work of county agents, and allied lines of the rural educational service.

Curriculum A is designed for persons who have had no vocational agriculture in high school or less than two years of such instruction. Curriculum B is designed for persons who have had two or more years of thoroughgoing instruction in secondary agriculture of the type offered in Maryland high schools. Curriculum B relieves the student of the necessity of pursuing beginning agricultural courses in the first two years of his college course, permits him to carry general courses in lieu of those displaced by his vocational program in high school, and offers him an opportunity to lay a broad foundation for the advanced work in agriculture of the last two college years.

In addition to the regular entrance requirements of the University, involving graduation from a standard four-year high school, students electing the agricultural education curricula must present evidence of having acquired adequate farm experience after reaching the age of fourteen years.

Students with high averages upon petition may be relieved of certain requirements in these curricula, when evidence is presented showing that either through experience or through previous training the prescription in their case is non-essential; or they may be allowed to carry an additional load.

Students electing those curricula may register either in the College of Education or in the College of Agriculture. In either case they will register with the College of Education for the teachers' special diploma. The teachers' special diploma will be awarded only to those students who have fulfilled all the requirements of the chosen curriculum.

Curriculum A.

	Semester	
Freshman Year	*I*	*II*
College Aims (Guid. 1y)	1	1
General Animal Husbandry (A. H. 1f)	3	—
Principles of Vegetable Culture (Hort. 11 s)	—	3
General Chemistry (Chem. 1-Ay or 1-By)	4	4
General Botany (Bot. 1f)	4	—
General Zoology (Zool. 1 s)	—	4
Composition and Rhetoric (Eng. 1y)	3	3
Basic R. O. T. C. (M. I. 1y)	1	1
	—	—
	16	16

	Semester I	Semester II
Sophomore Year		
Diseases of Plants (Plt. Path. 1f)	4	—
General Entomology (Ent. 1 s)	—	3
Cereal Crop and Forage Crop Production (Agron. 1f and 2 s)	3	3
Geology (Geol. 1f)	3	—
Soils and Fertilizers (Soils 1 s)	—	3
Feeds and Feeding (A. H. 101f)	3	—
Farm Dairying (D. H. 1 s)	—	3
Elementary Pomology (Hort. 1f)	3	—
Fundamentals of Economics (Econ. 5 s)	—	3
Basic R. O. T. C. (M. I. 2y)	2	2
	18	17
Junior Year		
Educational Psychology (Ed. 4f)	3	—
Observation and the Analysis of Teaching for Agricultural Students (Ag. Ed. 101 s)	—	3
Special Advanced Speaking (P. S. 15f and 16 s)	2	2
Engineering Drafting (Dr. 1y)	1	—
Farm Machinery (F. Mech. 101f)	3	—
Gas Engines, Tractors, and Automobiles (F. Mech. 102 s)	—	3
Farm Poultry (Poultry 1 s)	—	3
Genetics (Gen. 101f)	3	—
Methods of Crop and Soil Investigations (Agron. 121 s)	—	2
General Floriculture (Hort. 21f)	2	—
General Landscape Gardening (Hort. 31 s)	—	2
Agricultural Economics (A. E. 2f)	3	—
Marketing of Farm Products (A. E. 102 s)	—	3
	17	18
Senior Year		
Project Estimating and Cost Accounting (Ag. Ed. 102f)	2	—
Teaching Secondary Vocational Agriculture (Ag. Ed. 103f)	3	—
Departmental Organization and Administration (Ag. Ed. 104 s)	—	2
Practice Teaching (Ag. Ed. 105 s)	—	2
Rural Life and Education (Ag. Ed. 106 s)	—	3
Farm Shop Work (F. Mech. 104f)	1	—
Teaching Farm Shop in Secondary Schools (Ag. Ed. 107 s)	—	1
Farm Practicums and Demonstrations (Ag. Ed. 108y)	1	1
Principles of Secondary Education (Ed. 103 s)	—	3
Farm Management (F. M. 2f)	4	—
The Novel (Eng. 122f and 123 s) or Expository Writing (Eng. 5f and 6 s)	2	2
	13	14

Curriculum B.

	Semester I	Semester II
Freshman Year		
College Aims (Guid. 1y)	1	1
General Chemistry (Chem. 1-Ay or 1-By)	4	4
General Botany (Bot. 1f)	4	—
General Zoology (Zool. 1 s)	—	4
Composition and Rhetoric (Eng. 1y)	3	3
Physics	3	3
Basic R. O. T. C. (M. I. 1y)	1	1
	16	16
Sophomore Year		
Diseases of Plants (Pl. Path. 1f)	3	—
General Entomology (Ent. 1 s)	—	3
Elements of Organic Chemistry (Chem. 12f)	3	—
General Bacteriology (Bact. 1A s)	—	2
Geology (Geol. 1f)	3	—
Soils and Fertilizers (Soils 1s)	—	3
Principles of Economics (Econ. 3y)	3	3
Basic R. O. T. C. (M. I. 2y)	2	2
Electives	1	2
	15	15
Junior Year		
Educational Psychology (Ed. 4f)	3	—
Observation and the Analysis of Teaching for Agricultural Students (Ag. Ed. 101 s)	—	3
Special Advanced Speaking (P. S. 15f and 16 s)	2	2
Engineering Drafting (Dr. 1y)	1	—
Electives	11	12
	17	17
Senior Year		
Project Estimating and Cost Accounting (Ag. Ed. 102f)	2	—
Departmental Organization and Administration (Ag. Ed. 104 s)	—	2
Teaching Secondary Vocational Agriculture (Ag. Ed. 103f)	3	—
Rural Life and Education (Ag. Ed. 106 s)	—	3
Farm Shop Work (F. Mech. 104f)	1	—
Teaching Farm Shop in Secondary Schools (Ag. Ed. 107 s)	—	1
Farm Practicums and Demonstrations (Ag. Ed. 108y)	1	1
Practice Teaching (Ag. Ed. 105 s)	—	2
Electives	9	7
	16	16

Electives to be used as follows:

Advanced Animal Husbandry, Dairying, Poultry	8 hours
Advanced Agricultural Economics, Farm Management	6 hours
Advanced Agronomy	6 hours
Advanced Horticulture	6 hours
Advanced Farm Mechanics	6 hours
English, History, Philosophy, Secondary Education, Genetics, Advanced Educational Psychology	6 hours
Subjects of Special Interest	4 hours

HOME ECONOMICS EDUCATION

The Home Economics Education curriculum is for those students who wish to teach vocational home economics, to do home demonstration work, or to engage in other types of home economics in which teaching may be involved.

This is a general course including work in all phases of home economics—foods, clothing, child care—with professional training for teaching these subjects. Electives may be chosen from other colleges.

A combination curriculum for Home Economics and Physical Education is offered. This satisfies the state certification requirements for both subjects.

Opportunity for additional training and practice is given through directed teaching, practice house, and special work and observation of children at the National Child Research Center.

The teachers' special diploma will be awarded only to those who have fulfilled all requirements of this curriculum.

	Semester I	Semester II
Freshman Year		
Composition and Rhetoric (Eng. 1y)	3	3
College Aims (Guid. 1y)	1	1
Textiles and Clothing (H. E. 11f)	3	—
Textiles and Clothing (H. E. 12 s)	—	3
Principles of Design (H. E. 21f)	3	—
Costume Design (H. E. 24 s)	—	3
Reading and Speaking (P. S. 1y)	1	1
Physical Education (Phys. Ed. 2y and 4y)	1	1
Electives	4	4
	16	16
Sophomore Year		
General Chemistry (Chem. 1y)	4	4
Elementary Foods (H. E. 31y)	3	3
Physical Education (Phys. Ed. 6y and 8y)	2	2
Introduction to Teaching (Ed. 2f)	2	—

	Semester I	Semester II
*Special Application of Physics (Phys. 3 s)	—	4
Electives	5	3
	—	—
	16	16
Junior Year		
Educational Psychology (Ed. 4f)	3	—
Technic of Teaching (H. E. Ed. 5 s)	—	3
Household Bacteriology (Bact. 3 s)	—	3
Nutrition (H. E. 131f and 132 s)	3	3
Management of the Home (H. E. 141f and 142 s)	3	3
Elements of Organic Chemistry (Chem. 12f)	5	—
Electives	3	5
	—	—
	17	17
Senior Year		
Child Study (H. E. Ed. 102f)	5	—
Practice in Management of the Home (H. E. 143f)	5	—
Teaching Secondary Vocational Home Economics (H. E. Ed. 103f)	5	—
Interior Decoration (H. E. 121 s)	—	3
Problems in Teaching Home Economics (H. E. Ed. 106 s)	—	1
Principles of Secondary Education (Ed. 103 s)	—	3
Electives	—	8
	—	—
	15	15

Electives should include one course in each of the following groups:

General Botany, General Zoology, or Genetics;
General or Social Science;
Advanced English.

INDUSTRIAL EDUCATION

Three types of curricula are offered in Industrial Education; viz., a four-year curriculum, a two-year curriculum, and a special curriculum.

Four-Year Curriculum In Industrial Education

This curriculum is designed to prepare both Trade and Industrial teachers and teachers of Industrial Arts. There is sufficient latitude of electives so that a student may also meet certification requirements in some other high school subject.

The entrance requirements are the same as for other curricula offered in the University. Students entering this curriculum will be benefited by engaging in some trade or industry during the summer vacations.

* For students who have not had high school Physics.

One hundred twenty-eight semester credits are required for the degree of Bachelor of Science in Industrial Education.

Students entering an Indusrial Education curriculum must register in the College of Education.

This curriculum, with slight variations according to the needs of the two groups, is so administered as to provide: A. a four year curriculum in residence at College Park; B. a curriculum for teachers in service who have had some college work.

A. *The curriculum for students in residence* follows the general pattern of the other residence curricula in Education. The distribution of the curriculum requirements is approximately as follows:

Military Training or Physical Training	6 semester hours
English, including Public Speaking	12 semester hours
History and the Social Sciences	20 semester hours
Science and Mathematics	20 semester hours
Shop Work and Drawing	30 semester hours
Education	22 semester hours
Electives	18 semester hours

By careful selection of electives a student may prepare to teach not only the industrial subjects but also science, mathematics, history and social science, or physical education.

B. *The curriculum for teachers in service* is distributed approximately as follows:

English	12 semester hours
History, Sociology, Economics, and Political Science	20 semester hours
Science and Mathematics	20 semester hours
Shopwork and Drawing	30 semester hours
Education	24 semester hours
Electives	22 semester hours

These curriculum requirements may be met by the in-service courses in Baltimore offered by the Department of Industrial Education and by summer session attendance.

Two-Year Curriculum in Industrial Education

This curriculum is designed for mature students who have had experience in some trade or industry or in the teaching of shopwork.

Applicants for admission to this curriculum must have as a minimum requirement an elementary school education or its equivalent. The curriculum is prescribed, but it is administered flexibly in order that it may be adjusted to the needs of students.

At the completion of the curriculum a diploma is granted.

Special Courses for Teachers of Trades and Related Subjects

To meet the needs for industrial teacher-training in Baltimore and in other industrial centers, extension courses are offered. The work of these

courses deals with the analysis and classification of trade knowledge for instructional purposes, methods of teaching, observation and practice of teaching, organization and management of trade and industrial classes, psychology of trade and industrial education, tests and measurements, history of the development of industrial education, and occupational information, guidance, and placement.

The completion of eight teacher-training courses, which requires, in general, two years or two hundred fifty-six clock hours, will entitle a student to a full three year vocational teacher's certificate in the State of Maryland, and to a special diploma from the College of Education of the University of Maryland.

A special announcement of the extension courses may be obtained from the office of the Registrar either in Baltimore or in College Park.

COMMERCIAL EDUCATION

The entrance requirements for the curriculum in Commercial Education are as follows: English 3 units; Algebra 1 unit; Science 1 unit; History 1 unit; Stenography 2 units; Typewriting 1 unit; Bookkeeping 1 unit; elective 5 units.

The Commercial Education curriculum includes a solid foundation of economics, social science and history, accounting and business administration subjects, and adequate courses in methods of teaching commercial subjects, and supervised teaching.

The number of electives is large enough so that a student may prepare to teach some other subject in addition to the commercial subjects.

The curriculum does not include any college courses in shorthand and typewriting for the improvement of skill in these arts. Any student desiring to become a candidate for the bachelor's degree in commercial education must meet the speed and accuracy requirements in shorthand and typewriting and transcription necessary to become a teacher of commercial subjects either by work in commercial offices during the summer or by such other means as may be practicable for improving his skill and accuracy.

PHYSICAL EDUCATION

The Physical Education Curriculum is designed primarily to prepare teachers of physical education for the high schools. It is sufficiently specialized to meet that need. At the same time it is flexible enough so that certification requirements in other high school subjects may be met. A combination curriculum for Physical Education (girls) and Home Economics satisfies the State certification requirements for both subjects. The variations in the curriculum for men and for women are shown in the curriculum outline below.

Upon satisfactory completion of the curriculum the degree of Bachelor of Science will be conferred.

Students electing this curriculum must register in the College of Education.

General Requirements

The general requirements are the same as for Arts and Science Education (see p. 107) except that a foreign language is not required, and 14 semester hours of Biological Science are required as specified in the schedule.

	Semester I	Semester II
Freshman Year		
Composition and Rhetoric (Eng. 1y)	3	3
College Aims (Guid. 1y)	1	1
Reading and Speaking (P. S. 1y)	1	1
General Zoology (Zool. 1f)	4	—
General Bacteriology (Bact. 1 s)	—	4
From the following groups	6	6
History, Science, Foreign Language, Mathematics, Home Economics.		
(Women)		
Personal Hygiene and Physical Activities (Phys. Ed. 2y and 4y)	1	1
Music Appreciation (Mus. 1y)	1	1
(Men)		
R. O. T. C. (M. I. 1y)	1	1
Physical Activities (Phys. Ed. 1y)	1	1
Personal Hygiene (Phys. Ed. 11f)	2	—
Survey of Physical Education (Phys. Ed. 21 s)	—	2
	17-19	17-19
Sophomore Year		
Introduction to Teaching (Ed. 2f, 3 s)	2	2
Human Physiology (Zool. 15f)	3	--
Pathogenic Bacteriology (Bact. 2A s)	—	2
(Women)		
Personal Hygiene and Physical Activities (Phys. Ed. 6y and 8y)	2	2
Dancing (Phys. Ed. 10y)	2-4	2-4
Games (Phys. Ed. 12f)	3	—
History of Physical Education (Phys. Ed. 14 s)	—	3
Electives	3-5	4-6
(Men)		
R. O. T. C. (M. I. 2y)	2	2
Physical Activities (Phys. Ed. 3y)	2	2
Technics of Physical Education (Phys. Ed. 23y)	2	2
Electives	4-6	3-5
	15-17	15-17

	Semester I	Semester II
Junior Year		
Educational Psychology (Ed. 4f)	3	—
Technic of Teaching (Ed. 5 s)	—	3
Electives	6	6
(Women)		
Physical Education Activities for High School Girls (Ed. 140y)	2	2
Athletics (Phys. Ed. 18f and s)	2	2
Natural Gymnastics (Phys. Ed. 20f and s)	2	2
(Men)		
Analysis of Physical Education Activities (Phys. Ed. 25y)	3	3
Coaching High School Athletics (Phys. Ed. 13y)	3	3
	15	15
Senior Year		
Principles of Secondary Education (Ed. 103 s)	—	3
Special Methods and Supervised Teaching (See Methods in High School Subjects. Sec. III, p. 206)	3	3
(Women)		
Coaching and Officiating, Athletics for Girls (Phys. Ed. 26y)	2	2
Electives	10	7
(Men)		
Special Advanced Speaking (P. S. 15f and 16 s)	2	2
Public Health (Bact. 125 s)	—	1
Electives	10	6
	15	15

COLLEGE OF ENGINEERING

A. N. JOHNSON, *Dean*

Whether a man follows engineering as his life's work or enters other fields, it is well recognized that the training received in the engineering colleges of today affords a splendid preparation for many callings in public and private life outside the engineering profession.

The College of Engineering includes the Departments of Civil, Electrical, and Mechanical Engineering. A few years ago the curricula were considerably changed, the general purpose being to broaden the courses of instruction, that young men may be better prepared to enter industry or the public service. In either field there is abundant opportunity; each demands the civil, the electrical, and the mechanical engineer. Maryland needs men to carry on her great highway work and large public undertakings, as well as to carry on her industries. Such training, therefore, seems preeminently a function of the State's University.

The subject matter of the courses is not essentially different from that usually given. In order to give the time necessary to the technical subjects, as well as to those of a more general character, courses of study are prescribed so that the time in each semester may be used to the best advantage.

The studies prescribed for freshmen and sophomores are practically the same for all branches of engineering. Among the advantages that such a plan has is the very important one that the young man will not be called upon to decide definitely the branch of engineering in which he will specialize until his junior year.

Engineering research is recognized today as one of the most needed useful contributions that the engineering college can make to the State. Work of this character is under way at the University of Maryland, where, through co-operation with the Maryland State Roads Commission and the U. S. Bureau of Public Roads, highway research problems are being studied, the solution of which will prove of utmost value to the people of the State. It is planned to develop as rapidly as possible this phase of the work, which will have, aside from its great economic value to the State, an important educational value because of the close contact the students will have with the live engineering problems of today.

Admission Requirements

The requirements for admission to the College of Engineering are, in general, the same as elsewhere described for admission to the undergraduate departments of the University, except as to the requirements in mathematics. See Section I, "Entrance."

It is possible, however, for high school graduates having the requisite number of entrance units to enter the Engineering College without the unit

of advanced algebra, or the one-half unit of solid geometry, provided such students are prepared to devote their first summer to a course in analytic geometry. The program for such students would be as follows: During the first semester five hours a week would be devoted to making up advanced algebra and solid geometry; in the second semester mathematics of the first semester would be taken, and the second semester mathematics would be taken in the summer school. Thus, such students, if they passed the course, would be enabled to enter the sophomore year the next fall.

Bachelor Degrees in Engineering

Courses leading to the degree of Bachelor of Science are offered in Civil, Electrical, and Mechanical Engineering, respectively.

Master of Science in Engineering

The degree of Master of Science in Engineering is given to those students registered in the Graduate School who hold bachelor degrees in engineering, prerequisite for which requires a similar amount of preparation and work to that required for bachelor degrees in the Engineering College of the University of Maryland.

Candidates for the degree of Master of Science in Engineering are accepted in accordance with the procedure and requirements of the Graduate School, as will be found explained in the catalogue under the head of Graduate School.

Professional Degrees in Engineering

The degrees of Civil Engineer, Electrical Engineer, and Mechanical Engineer will be granted only to graduates of the University who have obtained a bachelor's degree in engineering. The applicant must satisfy the following conditions:

1. He shall have engaged successfully in acceptable engineering work not less than three years.

2. His registration for a degree must be approved at least twelve months prior to the date at which the degree is sought. He shall present with his application a complete report of his engineering experience and an outline of his proposed thesis.

3. He shall present a satisfactory thesis on an approved subject.

4. He must be considered eligible by a committee composed of the Dean of the College of Engineering and the heads of the Departments of Civil, Electrical, and Mechanical Engineering.

Equipment

The Engineering building is provided with lecture-rooms, recitation-rooms, drafting-rooms, laboratories, and shops for all phases of engineering work.

A substantial addition to the Engineering Building has been completed, and is being used primarily for the Electrical Engineering Department.

The laboratories formerly occupied by the Electrical Engineering Department have thus become available as additional space for the Civil and Mechanical Engineering Departments.

A feature of the additional space provided is a lecture room for general use, which seats about two hundred and fifty, and makes available for those courses in which the enrollment has greatly increased in the past few years a lecture room of greater seating capacity than the ordinary classroom provides.

Drafting-Rooms. The drafting-rooms are equipped for practical work. Engineering students must provide themselves with an approved drawing outfit, material, and books, the cost of which during the freshman year amounts to about $25.00.

Electrical Engineering Laboratory. The equipment includes many of the various types of direct current and alternating current generators and motors, rotary converter, distribution transformers, control apparatus, and the measuring instruments essential to practical electrical testing. For experimental work, electrical power is obtained from engine driven units and a turbine generator; a storage battery is used for constant voltage-testing purposes.

Instruments are available for measuring the candle power of lamps and for the determination of illumination intensities. The standardizing laboratory apparatus includes primary and secondary standards used in calibrating laboratory instruments.

The telephone laboratory is equipped with apparatus for experimental work on magneto and common battery system. The radio apparatus is limited, at present, to receiving sets.

Mechanical Engineering Laboratory. The apparatus consists of plain slide valve engines, steam turbine set, fans, pumps, indicators, gauges, feed water heaters, tachometers, injectors, flow meters, apparatus for determination of the B. T. U. in coal, gas, and liquid fuels, pyrometers, draft gauges, planimeters, thermometers, and other necessary apparatus and equipment for a mechanical laboratory.

Materials Laboratory. Apparatus and equipment are provided for making standard tests on various construction materials as steel, concrete, timber, and brick.

Equipment includes two 100,000-pound universal testing machines, cement-testing apparatus, extensometer and micrometer gauges, and other special devices for ascertaining the elastic properties of different materials.

Special apparatus which has been designed and made in the shops of the University is also made available for student work.

Highway Research Laboratory. Certain problems in highway research have been undertaken and are actively under way, being carried on in cooperation with the State Roads Commission and the U. S. Bureau of Public Roads.

A study of the traffic over the Maryland State Highway system has been in progress, and traffic maps have been prepared, which cover the entire state highway system.

The elastic properties of concrete have been studied in the laboratory; this work being co-ordinated with the general program of research problems undertaken by the U. S. Bureau of Public Roads.

In co-operation with the State Roads Commission, there are taken every year samples of concrete from the concrete roads of the State, these samples consisting of cores cut from the road by a special core drill apparatus mounted upon a suitably equipped truck. The cores are brought into the laboratory, where they are tested and records of the results sent to the State Roads Commission.

Machine Shops and Foundry. The machine shops and foundry are well lighted and fully equipped. Shops for wood working, metal, forge, and foundry practice are provided for engineering students.

The wood-working shop has full equipment of hand and power machinery.

The machine shops are equipped with various types of lathes, planers, milling machines, and drill presses.

The foundry is provided with an iron cupola, a brass furnace, and coke oven.

The shop equipment not only furnishes practice, drill, and instruction for students, but makes possible the complete production of special apparatus for conducting experimental and research work in engineering.

Surveying **Equipment.** Surveying equipment for plane topographic, and geodetic surveying is provided properly to equip several field parties. A wide variety of types of instruments is provided, including domestic as well as foreign makes.

Special **Models and Specimens.** A number of models illustrating various types of highway construction and highway bridges are available for students in this branch of engineering.

There has also been collected a wide variety of specimens of the more common minerals and rocks from various sections of the country, particularly from Maryland.

Library

Each department contains a well-selected library for reference, and the standard engineering magazines.

The class work, particularly in the higher courses, requires that the students consult special books of reference and current technical literature.

Curricula

The normal curriculum of each department is outlined on the following pages. Students are also expected to attend and take part in the meetings of the Engineering Society, Seminar, and engineering lectures.

Junior and senior students with requisite standing may elect additional hours not to exceed three a semester.

All members of the freshman engineering class are required to attend a series of lectures, the speakers, for the most part, being other than engineers. Each student is required to hand in a very brief written summary of each lecture.

All engineering students are urged to get work during the summer, particularly in some engineering field, if possible. On the return of the students in the fall, each is given a blank on which to state the character of the work upon which he has been engaged for the past summer, the name of the employer, and the amount of money he earned. Such records are very helpful when the students wish to secure employment upon graduation.

The proximity of the University to Baltimore and Washington, and to other places where there are great industrial enterprises, offers an excellent opportunity for the engineering student to observe what is being done in his chosen field. An instructor accompanies students on all trips of inspection.

Practically the same program is required of all students in engineering in the freshman and sophomore years.

Freshman Year	*Semester* I	II
Composition and Rhetoric (Eng. 1y)	3	3
*Elementary Social Sciences (Soc. Sci. 1y)	3	3
*Modern Language	3	3
Reading and Speaking (P. S. 1y)	1	1
Trigonometry, Advanced Algebra; Analytic Geometry (Math. 3f and 4 s)	5	5
General Chemistry (Chem. 1y)	4	4
Engineering Drafting (Dr. 1y)	1	1
Shop and Forge Practice (Shop. 1y)	1	1
Basic R. O. T. C. (M. I. 1y)	1	1
Engineering Lectures	—	—
	—	—
Sophomore Year	19	19
Oral Technical English (P. S. 4y)	1	1
*Modern Language (Adv. Course)	3	3
*Modern European History (H. 1y)	3	3
Calculus; Elementary Differential Equations (Math. 6y)	5	5
General Physics (Phys. 2y)	5	5
Descriptive Geometry (Dr. 2y)	2	2
Machine Shop Practice (Shop 2f and 3 s) M. and E.	1	2
Basic R. O. T. C. (M. I. 2y)	2	2
Surveying and Plane Surveying (Surv. 1f) M. and E.	1	—
Civil (Surv. 2y)	2	2
Engineering Lectures	—	—
	—	—
	20	20

* Alternatives.

CIVIL ENGINEERING

Junior Year	*Semester* I	II
Fundamentals of Economics (Econ. 5f)	3	—
*Advanced Oral Technical English (P. S. 5y)	1	1
*Engineering Geology (Engr. 3y)	1	1
Engineering Mechanics (Mech. 2y)	5	4
Prime Movers (Engr. 1y)	2	2
Elements, Design of Structures (C. E. 102 s)	—	5
*Materials of Engineering (Mech. 3s)	—	2
Advanced Surveying (Surv. 101f)	3	—
Elements of Railroads (C. E. 101f)	3	—
Land Transportation (Econ. 112 s)	—	3
Engineering Lectures	—	—
	—	—
	18	18
Senior Year		
*Advanced Oral Technical English (P. S. 6y)	1	1
*Engineering Jurisprudence (Engr. 102 s)	—	1
*Engineering Economy (Engr. 101 s)	—	1
Engineering Chemistry (Chem. 111f)	2	—
Sanitary Bacteriology (Bact. 4 s)	—	1
Highways (C. E. 106f)	4	—
Bridges, Masonry and Steel (C. E. 105y)	4	4
Buildings, Masonry and Steel (C. E. 104y)	4	4
Sanitation (C. E. 107y)	3	3
Thesis (C. E. 108 s)	—	3
Engineering Lectures	—	—
	—	—
	18	18

ELECTRICAL ENGINEERING

Junior Year		
Fundamentals of Economics (Econ. 5 s)	—	3
Differential Equations (Math. 103 f)	3	—
*Advanced Oral Technical English (P. S. 5y)	1	1
*Engineering Geology (Engr. 3y)	1	1
Engineering Mechanics (Mech. 1y)	4	3
*Materials of Engineering (Mech. 3s)	—	2
Elements of Machine Design (M. E. 101f)	1	—
Direct Currents (E. E. 102y)	5	5
Prime Movers (Engr. 2y)	2	2
Electrical Machine Design (E. E. 103y)	1	1
Engineering Lectures	—	—
	—	—
	18	18

* Required of all Engineering students.

Senior Year	*Semester* I	II
*Advanced Oral Technical English (P. S. 6y)	1	1
*Engineering Jurisprudence (Engr. 102s)	—	1
*Engineering Economy (Engr. 101s)	—	1
*Engineering Chemistry (Chem. 111f)	2	—
Alternating Currents (E. E. 104y)	5	5
Electrical Machine Design (E. E. 105y)	1	2
†Electric Railways and Electric Power Transmission (E. E. 106y)	3	4
†Telephones and Telegraphs (E. E. 107y)	3	4
†Radio Telephony and Telegraphy (E. E. 108y)	3	4
†Illumination (E. E. 109y)	3	4
Thermodynamics (Mech. 101f)	3	—
Engineering Lectures	—	—
	—	—
	18	18

MECHANICAL ENGINEERING

Junior Year		
Fundamentals of Economics (Econ. 5 s)	—	3
Differential Equations (Math. 103f)	3	—
*Advanced Oral Technical English (P. S. 5y)	1	1
*Engineering Geology (Engr. 3y)	1	1
Engineering Mechanics (Mech. 1y)	4	3
*Materials of Engineering (Mech. 3 s)	—	2
Foundry Practice (Shop 4 s)	—	1
Kinematics and Machine Design (M. E. 102y)	3	4
Engineering Chemistry (Chem. 111f)	3	—
Thermodynamics (Mech. 102y)	3	3
Engineering Lectures	—	—
	—	—
	18	18

Senior Year		
*Advanced Oral Technical English (P. S. 6y)	1	1
*Engineering Jurisprudence (Engr. 102s)	—	1
*Engineering Economy (Engr. 101s)	—	1
Design of Prime Movers (M. E. 107y)	3	3
Design of Power Plants (M. E. 108s)	—	2
Design of Pumping Machinery (M. E. 106 s)	—	2
Heating and Ventilation (M. E. 105f)	2	—
Elementary Physical Chemistry (Chem. 10y)	3	3
Mechanical Laboratory (M. E. 109y)	1	1
Principles of Electrical Engineering (E. E. 101y)	4	4
Heat Power Engineering (M. E. 104f)	2	—

* Required of all Engineering students.
† Select two.

	Semester I	II
Steam Boilers and Feed Water Heaters (M. E. 103f)	2	—
Engineering Lectures	—	—
	—	—
	18	18

COLLEGE OF HOME ECONOMICS

M. Marie Mount, *Dean*

Home economics subjects are planned to meet the needs of the following classes of students: (1) those who desire a general knowledge of home economics without specializing in any one phase; (2) those students who wish to teach home economics or to become extension specialists in home economics; (3) those who are interested in certain phases of home economics with the intention of becoming dietitians, restaurant and cafeteria managers, textile specialists, designers, buyers of clothing in department stores, or demonstrators for commercial firms.

Departments

For administrative purposes the College of Home Economics is organized into the Departments of Foods and Nutrition; Textiles, Clothing, and Art; and Home and Institutional Management.

Facilities

The Home Economics Building is adequately equipped with class rooms and laboratories. In addition the college also maintains a home management house, in which students gain practical experience in home making during their senior year.

Baltimore and Washington afford unusual opportunities for trips, additional study, and practical experience pertaining to the various phases of home economics.

Degree

The degree of Bachelor of Science is conferred for the satisfactory completion of four years of prescribed courses, of 128 semester hours. In accordance with the University policy, not less than three-fourths of the credits for graduation must be earned with grades of A, B, or C.

Prescribed Curricula

All students registered in the College of Home Economics follow the General Home Economics Curriculum for the first two years. At the beginning of the junior year a student may continue with the General Home Economics Curriculum, or elect one of the following special curricula, or a combination of curricula. A student who wishes to teach home economics may register in Home Economics Education in the College of Home Economics, or in the College of Education (see Home Economics Education).

Following are the outlines of the Curricula for General Home Economics, Textiles and Clothing, Foods and Nutrition, and Institutional Management:

GENERAL HOME ECONOMICS

	Semester I	Semester II
Freshman Year		
Composition and Rhetoric (Eng. 1 y)	3	3
Textiles and Clothing (H. E. 11 f)	3	—
Textiles and Clothing (H. E. 12 s)	—	3
Principles of Design (H. E. 21f)	3	—
Custume Design (H. E. 24 s)	—	3
Reading and Speaking (P. S. 1 y)	1	1
Physical Education (Phys. Ed. 2 y and 4 y)	1	1
*Language or Electives	4	4
Home Economics Lectures	—	—
	—	—
	15	15
Sophomore Year		
General Chemistry (Chem. 1y)	4	4
Elementary Foods (H. E. 31 y)	3	3
Special Applications of Physics (Phys. 3 s)	—	4
Physical Education (Phys. Ed. 6 y and 8 y)	2	2
**Electives	8	4
	—	—
	17	17
Junior Year		
Elements of Organic Chemistry (Chem. 12f)	5	—
Household Bacteriology (Bact. 3 s)	—	3
Nutrition (H. E. 131 f and 132 s)	3	3
Management of the Home (H. E. 141f and 142 s)	3	3
Advanced Clothing (H. E. 111 f)	4	—
**Electives	3	8
	—	—
	18	17
Senior Year		
Child Study (H. E. Ed. 102 f)	5	—
Practice in Management of the Home (H. E. 143f)	5	—
Choice of one unit in Foods, Clothing, Textiles, or an additional unit in Child Study	5	—
Interior Decoration (H. E. 121 s)	—	3
**Electives	—	12
	—	—
	15	15

*The language requirement may be waived for students entering with three or more years of a language.

** In addition to the curriculum as prescribed, one course in each of the groups indicated below, is required:
economics; psychology; sociology; and one of the following sciences:
zoology, botany, or genetics.

TEXTILES AND CLOTHING CURRICULUM

	Semester I	Semester II
Junior Year		
Elements of Organic Chemistry (Chem. 12f)	5	—
Household Bacteriology (Bact. 3 s)	—	3
Nutrition (H. E. 131 f)	3	—
Advanced Clothing (H. E. 111 f)	4	—
Chemistry of Textiles (Chem. 14 s)	—	4
Management of the Home (H. E. 141f and 142 s)	3	3
Electives	3	7
	17	17
Senior Year		
Practice in Management of the Home (H. E. 143f)	5	—
Child Study (H. E. Ed. 102 f)	5	—
Problems and Practice in Textiles or Clothing (H. E. 113f)	5	—
Interior Decoration (H. E. 121 s)	—	3
Special Clothing Problems (H. E. 112 s)	—	3
Advanced Design (H. E. 123 s)	—	3
Electives	—	6
	15	15

FOODS CURRICULUM

Junior Year		
Elements of Organic Chemistry (Chem. 12f)	5	—
General Physiological Chemistry (Chem. 108 s)	—	4
Nutrition (H. E. 131 f and 132 s)	3	3
Management of the Home (H. E. 141f and 142 s)	3	3
Demonstrations (H. E. 133 f)	2	—
Household Bacteriology (Bact. 3 s)	—	3
Electives	5	4
	17	17
Senior Year		
Child Study (H. E. Ed. 102 f)	5	—
Practice in Management of the Home (H. E. 143f)	5	—
Problems and Practice in Foods (H. E. 135f)	5	—
Interior Decoration (H. E. 121 s)	—	3
Advanced Foods (H. E. 134 s)	—	3
Electives	—	9
	15	15

Note: Upon the advice of the instructor in charge, the Clothing and Textile curriculum may be modified to allow for the election of certain art courses for interested students.

INSTITUTIONAL MANAGEMENT CURRICULUM

	Semester I	Semester II
Junor Year		
Elements of Organic Chemistry (Chem. 12 f)	5	—
Household Bacteriology (Bact. 3 s)	—	3
Nutrition (H. E. 131 f and 132 s)	3	3
Management of the Home (H. E. 141 f and 142 s)	3	3
Institutional Management (H. E. 144 y)	3	3
Electives	4	5
	17	17
Senior Year		
Practice in Management of the Home (H. E. 143 f)	5	—
Childs Study (H. E. Ed. 102 f)	5	—
Practice in Institutional Management (H. E. 145 f) or Problems and Practice in Foods (H. E. 135 f)	5	—
Advanced Institutional Management (H. E. 146 s)	—	3
Interior Decoration (H. E. 121 s)	—	3
Electives	—	9
	15	15

THE GRADUATE SCHOOL

C. O. APPLEMAN, *Dean*

HISTORY AND ORGANIZATION

In the earlier years of the institution the Master's degree was frequently conferred, but the work of graduate students was in charge of the departments concerned, under the supervision of the General Faculty. The Graduate School of the University of Maryland was established in 1918, and organized graduate instruction leading to both the Master's degree and the Doctor's degree was undertaken. The faculty of the Graduate School includes all members of the various faculties who give instruction in approved graduate courses. The general administrative functions of the Graduate Faculty are delegated to a Graduate Council, of which the Dean of the Graduate School is chairman.

GENERAL REGULATIONS

ADMISSION

Graduates of colleges and universities of good standing are admitted to the Graduate School. Before entering upon graduate work all applicants must present evidence that they are qualified by their previous work to pursue with profit the graduate courses desired. Application blanks for admission to the Graduate School are obtained from the office of the Dean. After approval of the application, a matriculation card, signed by the Dean, is issued to the student. This card permits the student to register in the Graduate School.. After payment of the fee, the matriculation card is stamped and returned to the student. It is the student's certificate of membership in the Graduate School, and may be called for at any succeeding registration.

Admission to the Graduate School does not necessarily imply admission to candidacy for an advanced degree.

REGISTRATION

All students pursuing graduate work in the University, even though they are not candidates for higher degrees, are required to register at the beginning of each semester in the office of the Dean of the Graduate School, Room T-214, Agricultural Building. Students taking graduate work in the Summer School are also required to register in the Graduate School at the beginning of each session. In no case will graduate credit be given unless the student matriculates and registers in the Graduate School. The program of work for the semester or the summer session is entered upon two course cards, which are signed first by the professor in charge of the student's major subject and then by the Dean of the Graduate School. One card is retained in the Dean's office. The student takes the other card, and,

in case of a new student, also the matriculation card, to the Registrar's office, where a charge slip for the fee is issued. The charge slip, together with the course card, is presented at the Cashier's office for adjustment of fees. After certification by the Cashier that fees have been paid, class cards are issued by the Registrar. Students will not be admitted to graduate courses without class cards. Course cards may be obtained at the Registrar's office or at the Dean's office. The heads of departments usually keep a supply of these cards in their respective offices.

GRADUATE COURSES

Graduate students must elect for credit in partial fulfillment of the requirements for higher degrees only those courses designated *For Graduates* or *For Advanced Undergraduates and Graduates.* Graduate students may elect courses numbered from 1 to 99 in the general catalogue, but graduate credit will not be allowed for these courses. Students with inadequate preparation may be obliged to take some of these courses as prerequisites for advanced courses.

PROGRAM OF WORK

The professor who is selected to direct a student's thesis work is the student's adviser in the formulation of a graduate program including suitable minor work. This program receives the approval of the Dean by his endorsement of the student's course card.

To encourage thoroughness in scholarship through intensive application, graduate students in the regular sessions taking courses carrying full graduate credit are limited to a program of thirty credit hours for the year. Students holding half-time graduate assistantships are usually limited to sixteen credit hours for the year. Four or six additional credits may be allowed if six or more of the total constitute seminar and research work.

Residence credit for all research work relating directly to the Master's or the Doctor's thesis should be stated as credit hours on the registration card for the semester in which the work is to be done. If a student is doing only research work under the direction of an official of the institution he must register and pay for a minimum of four credit hours per semester. The number of credit hours reported at the end of the semester will depend upon the work accomplished, but it will not exceed the number for which the student is registered.

SUMMER GRADUATE WORK

Graduate work in the Summer Session may be counted as residence towards an advanced degree. Four summer sessions and six credits on thesis work done *in absentia* under direction may be accepted as satisfying the residence requirement for the Master's degree. By carrying approximately six semester hours of graduate work for four sessions and upon submitting a satisfactory thesis, a student may be granted the degree of Master of Arts or Master of Science. In some instances a fifth summer may be required in order that a satisfactory thesis may be completed.

Graduate students who combine the summer and winter plans for the Master's degree are required to spend at least three full summers and one semester in residence.

Upon recommendation by the head of the student's major department and approval of the Graduate Council, a maximum of six semester hours of graduate work done at other institutions of sufficiently high standing may be substituted for required work here; such substitution does not shorten the required residence period.

Graduate work may be pursued during the entire summer in some departments, by special arrangement. Such students as graduate assistants, or others who may wish to supplement work done during the regular year, may satisfy one-third of an academic year's residence by full-time graduate work for 11 or 12 weeks, provided satisfactory supervision and facilities for summer work are available in their special fields.

The University publishes a special bulletin given full information concerning the Summer School and the graduate courses offered during the Summer Session. This bulletin is available upon application to the Registrar of the University.

GRADUATE WORK BY SENIORS IN THIS UNIVERSITY

Seniors who have completed all their undergraduate courses in this University by the end of the first semester, and who continue their residence in the University for the remainder of the year, are permitted to register in the Graduate School and secure the privileges of its membership, even though the bachelor's degree is not conferred until the close of the year.

Seniors of this University who have nearly completed the requirements for the undergraduate degree may, with the approval of their undergraduate Dean and the Dean of the Graduate School, register in the undergraduate college for graduate courses, which will be transferred for graduate credit towards a degree at this University, but the total of undergraduate and graduate courses must not exceed 15 credits for the semester.

ADMISSION TO CANDIDACY FOR ADVANCED DEGREES

Application for admission to candidacy for either the Master's or the Doctor's degree is made on application blanks, which are obtained at the office of the Dean of the Graduate School. These are filled out in duplicate and after the required endorsements are obtained, the applications are acted upon by the Graduate Council. An official transcript of the candidate's undergraduate record and any graduate courses completed at other institutions must accompany the application unless these are already on file in the Dean's office.

A student making application for admission to candidacy for the degree of Doctor of Philosophy must also obtain from the head of the Modern Language Department a statement that he possesses a reading knowledge of French and German. Regular examinations are held in the office of the

Modern Language Department on the first Wednesdays of February, June, and October.

Admission to candidacy in no case assures the student of a degree, but merely signifies that the candidate has met all the formal requirements and is considered by his instructors sufficiently prepared and able to pursue such graduate study and research as are demanded by the requirements of the degrees sought. The candidate's record in graduate work already completed must show superior scholarship. A preliminary examination or such other substantial tests as the departments elect may also be required for admission to candidacy for the degree of Doctor of Philosophy. The time to make applications for admission to candidacy is stated under the heading of requirements for the degree sought.

REQUIREMENTS FOR THE DEGREES OF MASTER OF ARTS AND MASTER OF SCIENCE

Advancement to Candidacy. Each candidate for the Master's degree is required to make application for admission to candidacy not later than the date when instruction begins for the second semester of the academic year in which the degree is sought, but not until at least the equivalent of one semester of graduate work has been completed.

Residence Requirements. The standard residence requirement is one academic year, but this does not mean that the work prescribed for each individual student can always be completed in one academic year. Inadequate preparation for the graduate courses the student wishes to pursue may make a longer period necessary.

Credits and Scholarship Requirements. The minimum credit requirement is 30 semester hours in courses approved for graduate credit. From 18 to 20 credits must be earned in the major subject; and at least one-half of the total major credits, including thesis, must be taken in courses for graduates only. The number of major credits allowed for thesis ranges from 6 to 10, depending upon the amount of work done and upon the major course requirements. From 10 to 12 credits must lie outside the major subject and form a coherent group of courses intended to supplement and support the major work. The maximum total credit for the one hour per week seminar courses is limited to four semester hours in the major subject and to two semester hours in the minor subjects. No credits are acceptable for an advanced degree that are reported with a grade lower than "C".

At least 20 of the 30 semester credits required for the Master's degree must be taken at this institution. In certain cases graduate work done in other graduate schools of sufficiently high standing may be substituted for the remaining required credits, but any such substitution of credits does not shorten the normal required residence at the University of Maryland. The Graduate Council, upon recommendation of the head of the major department, passes upon all graduate work done at other institutions. The final examination will cover all graduate work offered in fulfillment of the requirements for the degree.

Work in accredited research laboratories of the United States Department of Agriculture and other local national research agencies may be accepted, when previously arranged, as residence work in fulfillment of the thesis requirement for a degree. These laboratories are located within easy reach of the University.

Thesis. The thesis required for the Master's degree should be typewritten, double spaced, on a good quality of paper 11 x 8½ inches in size. The original copy must be deposited in the office of the Graduate School not later than two weeks before commencement. One or two additional copies should be provided for use of members of the examining committee prior to the final examination.

Final Examination. The final oral examination is conducted by a committee appointed by the Dean of the Graduate School. The student's adviser acts as the chairman of the committee. The other members of the committee are persons under whom the student has taken most of his major and minor courses. The period for the oral examination is approximately one hour.

The examining committee also approves the thesis, and it is the candidate's obligation to see that each member of the committee has ample opportunity to examine a copy of the thesis prior to the date of the examination.

A student will not be admitted to final examination until all other requirements for the degree have been met.

REQUIREMENTS FOR THE DEGREE OF DOCTOR OF PHILOSOPHY

Advancement to Candidacy. Candidates for the Doctor's degree must be admitted to candidacy not later than one academic year prior to the granting of the degree. Applications for admission to candidacy for the Doctor's degree must be deposited in the office of the Dean not later than October 1 of the academic year in which the degree is sought.

Residence. Three years of full-time resident graduate study beyond the Bachelor's degree or two years beyond the Master's degree are required. The first two of the three years may be spent in other institutions offering standard graduate work. On a part-time basis the time needed will be correspondingly increased. The degree is not given merely as a certificate of residence and work, but is granted only upon sufficient evidence of high attainments in scholarship and ability to carry on independent research in the special field in which the major work is done.

Major and Minor Subjects. The candidate must select a major and one or two closely related minor subjects. Thirty semester hours of minor work are required. The remainder of the required residence is devoted to intensive study and research in the major field. The amount of required course work in the major will vary with the subject and the individual candidate.

Thesis. The ability to do independent research must be shown by a dissertation on some topic connected with the major subject. The original

typewritten copy of the thesis must be deposited in the office of the Dean at least three weeks before the time the degree is granted. One or two extra copies should be provided for use of members of the examining committee prior to the date of the final examination. The theses are later printed in such form as the committee and the Dean may approve and fifty copies are deposited in the University library.

Final Examination. The final oral examination is held before a committee appointed by the Dean. One member of this committee is a representative of the Graduate Faculty who is not directly concerned with the student's graduate work. One or more members of the committee may be persons from other institutions, who are distinguished scholars in the student's major field.

The duration of the examination is approximately three hours, and covers the research work of the candidate as embodied in his thesis, and his attainments in the fields of his major and minor subjects.

GRADUATE FEES

The fees paid by graduate students are as follows:

A matriculation fee of $10.00. This is paid once only, upon admission to the Graduate School.

A fixed charge, each semester, at the rate of $4.00 per semester credit hour.

A diploma fee (Master's degree), $10.00.

Graduation fee, including hood (Doctor's degree), $20.00.

FELLOWSHIPS AND GRADUATE ASSISTANTSHIPS

A number of fellowships and graduate assistantships have been established by the University. A few industrial fellowships are also available in certain departments.

Applications for Fellowships and Graduate Assistantships. Application blanks may be obtained at the office of the Dean of the Graduate School. All applications with the necessary credentials are sent by the applicant direct to the Dean not later than May 15. His endorsement assures the applicant of admission to the Graduate School in case he is awarded either a fellowship or a graduate assistantship. After the applications have been approved by the Dean they are sent to the heads of the departments concerned, who make the selection and recommend to the proper administrative officer that the successful applicants be appointed. All the applications together with the credentials are then returned to the office of the Dean of the Graduate School. Those of the successful applicants, properly endorsed, are placed on file for record. The credentials will be returned to the unsuccessful applicants.

Appointments. Fellowship appointments are for the academic year; in certain cases the term of appointment may be extended to include one or two summer months in addition to the nine months of the academic year. Appointments of graduate assistants are made for twelve months, with

one month's vacation. Graduate students holding appointments as fellows or graduate assistants are exempt from all fees except graduation fees.

Service Requirements. Each University fellow is expected to give a limited portion of his time to instruction or performing equivalent duties prescribed by the major department. The usual maximum amount of service required is five hours per week of class-room work or twelve hours of laboratory and other prescribed duties. No service is required of the industrial fellow other than research. The teaching graduate assistants devote one-half of their time to instruction. This is equivalent to about one-half of the load of a full-time instructor. Several research assistantships are offered by the Experiment Station, and the only service required is in connection with research projects.

Residence Requirements for a Degree. Fellows may satisfy the residence requirements for either the Master's or the Doctor's degree without extension of the usual time.

Graduate assistants are required to spend two years in residence for the Master's degree, but for the Doctor's degree they are allowed two-thirds residence credit for each academic year at this University. The minimum residence requirement beyond the Bachelor's degree, therefore, may be satisfied in four academic years and one summer, or three academic years and three summers of 11 to 12 weeks.

GRADUATE SCHOOL ANNOUNCEMENTS FOR 1933-1934

The University publishes a special bulletin giving more detailed information concerning graduate work. This publication containing the Graduate School announcements for the year 1933-1934 is available upon application to the Registrar of the University.

SUMMER SCHOOL

WILLARD S. SMALL, *Director*

A Summer Session of six weeks is conducted at College Park. The program serves the needs of the following classes of students: (1) teachers and supervisors of the several classes of school work—elementary, secondary, vocational, and special; (2) regular students who are candidates for degrees; (3) graduate students; (4) special students not candidates for degrees.

Terms of Admission

Teachers and special students not seeking a degree are admitted to the courses of the summer session for which they are qualified. All such selection of courses must be approved by the Director of the Summer School.

The admission requirements for those who desire to become candidates for degrees are the same as for any other session of the University. Before registering, a candidate for a degree will be required to consult the Dean of the College or School in which he wishes to secure the degree.

Credits and Certificates

The semester hour is the unit of credit as in other sessions of the University. In the summer session, a course meeting five times a week for six weeks and requiring the standard amount of outside work has a value of two semester hours.

Appropriate educational courses satisfactorily completed will be credited by the State Department of Education towards satisfying certification requirements of all classes.

Summer Graduate Work

For persons wishing to do graduate work towards an advanced degree in the summer sessions, special arrangements are made supplementing the regular procedure. Teachers and other graduate students working for a degree on the summer plan must meet the same requirements as to admission, credits, scholarship, and examinations as do students enrolled in the other sessions of the University.

For detailed information in regard to the Summer Session consult the special Summer School announcement, issued annually in April.

DEPARTMENT OF MILITARY SCIENCE AND TACTICS

ALVAN C. GILLEM, JR., *Major Infantry (D.O.L.), U. S. Army, Professor*

RESERVE OFFICERS' TRAINING CORPS

The work in this department is based upon the provisions of Army Regulations No. 145-10, War Department.

Authorization

An infantry unit of the Senior Division of the Reserve Officers' Training Corps was established at the University under the provisions of the Act of Congress of June 3, 1916, as amended.

Objectives

*Basic Course

The object of this course is to afford to students enjoying the privileges of State and Federal aided education an opportunity to be trained for positions involving leadership, within either the State or the nation. To this end the methods employed are designed to fit men mentally, physcially, and morally for pursuits of peace or, if necessity requires, for national defense.

**Advanced Course

The primary object of the Advanced Course is to provide military instruction and systematic training through the agency of civil educational institutions to selected students, to the end that they may qualify as reserve officers in the military forces of the United States. It is intended to attain this objective during the time the students are pursuing their general or professional studies, thus causing minimum interference to the preparatory requirements of their projected civil careers.

A student prior to enrollment in this course must have satisfactorily completed the basic course and must have indicated in writing his desire to undertake the course. The applicant further must obtain on this document the recommendation of both the Dean of his College and the Professor of Military Science and Tactics, and submit same to the President of the Institution for approval. No student will be enrolled in the Advanced Course without the approval of the President of the University.

Time Alloted

For first and second years, basic course, three periods a week of not less

* Required of qualified students.
** Elective for qualified students.

than one hour each are devoted to this work, of which at least one hour is utilized for theoretical instruction.

For third and fourth years, advanced course, elective, five periods a week of not less than one hour each are devoted to this work, of which at least three periods are utilized for theoretical instruction.

Physical Training

Physical training forms an important part in military instruction, and it is the policy of the Military Department to encourage and support the physical training given by civilian teachers, thus cooperating in an effort to promote a vigorous manhood.

Physical Examination

All members of the Reserve Officers' Training Corps are required to be examined physically at least once after entering the University.

Uniforms

Members of the Reserve Officers' Training Corps must appear in proper uniform at all military formations and at such other times as the Professor of Military Science and Tactics may designate with the approval of the President of the University.

Uniforms, or commutation in lieu of uniforms, for the Reserve Officers' Training Corps, will be furnished free by the Government. The uniforms are the regulation uniforms of the United States Army, with certain distinguishing features; or if commutation of uniforms is furnished, then such uniforms as may be adopted by the University. Such uniforms must be kept in good condition by the students. They remain the property of the Government; and, though intended primarily for use in connection with military instruction, may be worn at any other time unless the regulations governing their use are violated. The uniform will not be worn in part. Uniforms which are furnished by the Government will be returned to the Military Department at the end of the year; or before, if the student leaves the University. In case commutation of uniforms is furnished, the uniform so purchased becomes the property of the student upon completion of two years' work.

Commutation

Those students who elect the advanced course and who have signed the contract with the Government to continue in the Reserve Officers' Training Corps for the two remaining years of the advanced course are entitled to a small per diem money allowance, payable quarterly from and including the date of contract, until they complete the course at the institution.

Summer Camps

An important and excellent feature of the Reserve Officers' Training

Corps is the summer camp. In specially selected parts of the country, camps are held for a period not exceeding six weeks for students who are members of the Reserve Officers' Training Corps. These camps are under the close and constant supervision of army officers, and are intended primarily to give a thorough and comprehensive practical course of instruction in the different arms of the service.

Parents may feel assured that their sons are carefully watched and safeguarded. Wholesome surroundings and associates, work and healthy recreation are the keynote to contentment. Social life is not neglected, and the morale branch exercises strict censorship over all social functions.

The attendance at summer camps is compulsory only for those students who are taking the advanced course, which, as has been previously stated, is elective.

The students who attend the summer camps are under no expense. The Government furnishes transportation from the institution to the camp and from the camp to the institution, or to the student's home, unless the mileage is greater than that from the camp to the institution. In this case, the amount of mileage from the camp to the institution is allowed the student. Clothing, quarters, and food are furnished. The Advanced Course students, in addition to receiving quarters and food, are paid seventy cents ($0.70) for each day spent in camp. To obtain credit for camp a student must be in attendance at camp at least 85 per cent of the prescribed camp period.

Commissions

(a) Each year, upon completion of the Advanced Course, students qualified for commissions in the Reserve Officers' Corps will be selected by the head of the institution and the professor of Military Science and Tactics.

(b) The number to be selected from each institution and for each arm of the service will be determined by the War Department.

(c) The University of Maryland has received a rating from the War Department of "Generally Excellent" for the past several years. This rating indicates that the work of its R. O. T. C. unit has been recognized by the Federal Government as being of a superior order. The "Generally Excellent" rating supersedes the former designation of "Distinguished College," which designation has been discontinued by the War Department.

Credits

Military instruction at this University is on a par with other university work, and the requirements of this department as to proficiency the same as those of other departments.

Those students who have received military training at any educational institution under the direction of an army officer detailed as professor of military science and tactics may receive such credit as the professor of military science and tactics and the President may jointly determine.

PHYSICAL EDUCATION, RECREATION, AND ATHLETICS

The purpose of the program of physical education at the University is broadly conceived as the development of the individual student. To accomlish this purpose, physical examinations and classification tests are given the incoming students to determine the relative physical fitness of each student. Upon the basis of the needs disclosed by these tests, and individual preferences, students are assigned to the various activities of the program.

Freshmen and sophomores assigned to physical education take three activity classes each week throughout the year. In the fall, soccer, touch football, and tennis are the chief activities; in the winter, basketball, volley ball, and other team games; and in the spring, track, baseball, and tennis. In addition to these team activities, sophomore students may elect a considerable number of individual sports, such as fencing, boxing, wrestling, horseshoes, ping pong, bag punching, and the like.

An adequate program of intramural sports is conducted, also. Touch football and soccer in the fall, basketball and volleyball in the winter, baseball and track in the spring, are the chief activities in this program. Cups, medals, and appropriate awards in all tournaments of the program are provided for the winning teams and individual members.

Every afternoon of the school session the facilities of the Physical Education Department are thrown open to all students for free unorganized recreation. Soccer, indoor baseball, basket shooting, apparatus work, fencing, boxing, wrestling, bag punching, tennis, touch football, and ping pong are the most popular contests sponsored in this manner.

The University is particularly fortunate in its possession of excellent facilities for carrying on the activities of the program of physical education. A large modern gymnasium, a new field house, a number of athletic fields, tennis courts, baseball diamonds, running tracks, and the like, and an athletic plant provided solely for the program of physical education conducted for the girls constitute the equipment.

In addition to the activities described above, the University sponsors a full program of intercollegiate althletics for men. Competition is promoted in varsity and freshman football, basketball, baseball, track, boxing, lacrosse, and tennis, which are all major sports of this program. The University is a member of the Southern Conference, the National Collegiate Athletic Association, and other national organizations for the promotion of amateur athletics.

The University also maintains curricula designed to train men and women students to teach physical education and coach in the high schools of the State.

For a description of the courses in Physical Education, see College of Education, and Section III, Description of Courses.

SCHOOL OF DENTISTRY

J. BEN. ROBINSON, *Dean.*

Faculty Council

GEORGE M. ANDERSON, D.D.S., F.A.C.D.
ROBERT P. BAY, M.D., F.A.C.S.
HORACE M. DAVIS, D.D.S. F.A.C.D.
OREN H. GAVER, D.D.S., F.A.C.D.
BURT B. IDE, D.D.S., F.A.C.D.
HOWARD J. MALDEIS, M.D.,
ROBERT L. MITCHELL, Phar.D., M.D.
ALEXANDER H. PATERSON, D.D.S., F.A.C.D.
J. BEN ROBINSON, D.D.S., F.A.C.D.
LEO A. WALZAK, D.D.S.

HISTORY

The University of Maryland was created by an act of the Maryland Legislature, January 20, 1808, for the purpose of offering a course of instruction in medical science. There were at that period but four medical schools in America—the University of Pennsylvania, founded in 1765; Harvard University, in 1782; Dartmouth College, in 1798, and the College of Physicians and Surgeons of New York, May, 1807.

The first lectures on dentistry in America were delivered by Dr. Horace H. Hayden in the University of Maryland, School of Medicine, between the years 1821 and 1825. These lectures were interrupted in 1825 by internal dissension in the School of Medicine but were continued in the year 1837. It was Dr. Hayden's idea that dentistry merited greater attention than had been given it by medical instruction, and he undertook to develop this speciality as a branch of medicine. With this thought in mind he, with the support of Dr. Chapin A. Harris, appealed to the Faculty of Physic of the University of Maryland for the creation of a department of dentistry as a part of the medical curriculum. The request having been refused, an independent college was decided upon. A charter was applied for and granted by the Maryland Legislature February 1, 1840. The first faculty meeting was held February 3, 1840, as which time Dr. H. H. Hayden was elected President and Dr. C. A. Harris, Dean. The introductory lecture was delivered by Dr. Harris on November 3, 1840, to the five students matriculated in the first class. Thus was the Baltimore College of Dental Surgery, the first and oldest dental school in the world, created as the foundation of the present dental profession.

In 1873, the Maryland Dental College, an offspring of the Baltimore College of Dental Surgery, was organized and continued instruction in dental subjects until 1879, at which time it was consolidated with the Baltimore College of Dental Surgery. A department of dentistry was organized at the University of Maryland in the year 1882, graduating a class each year from 1883 to 1923. This school was chartered as a corporation and continued as a privately owned and directed institution until 1920, when it became a State institution. The Dental Department of the Baltimore Medical College was established in 1895, continuing until 1913, when it merged with the Dental Department of the University of Maryland.

The final combining of the dental educational interests of Baltimore was effected June 15, 1923, by the amalgamation of the student bodies of the Baltimore College of Dental Surgery and the University of Maryland, School of Dentistry, the Baltimore College of Dental Surgery becoming a distinct department of the State University under State supervision and control. Thus we find in the Baltimore College of Dental Surgery, Dental School, University of Maryland, a merging of the various efforts at dental education in Maryland. From these component elements have radiated developments of the art and science of dentistry until the strength of its alumni is second to none either in number or degree of service to the profession.

BUILDINGS

The School of Dentistry now occupies its new building at the northwest corner of Lombard and Greene Sts., immediately facing the University Hospital and so situated that it offers splendid opportunity for abundant clinic material. The new building provides approximately 45,000 square feet of floor space, is fire proof, and is ideally lighted and ventilated. A sufficient number of large lecture rooms and classrooms, a library and reading room, science laboratories, technic laboratories, clinic rooms, locker rooms, etc., are provided. The building is furnished with new equipment throughout with every accommodation necessary for satisfactory instruction under comfortable arrangements and pleasant surroundings. The large clinic wing accommodates one hundred and thirty-six chairs. The following clinic departments have been provided: Operative, Prosthetic (including Crown and Bridge and Ceramics), Anesthesia and Surgery, Pathology, Orthodontia, Pedodontia, Radiodontia, and Photography. Modern units with electric engines have been installed in all clinics, while provision has been made for the use of electric equipment in all technic laboratories.

Course of Instruction

The Baltimore College of Dental Surgery, Dental School, University of Maryland, offers a five-year course in dentistry, the first year of which includes thirty-two semester hours of college work under the direction and authority of the College of Arts and Sciences, University of Maryland. The other years are devoted to instruction in the medical and dental sciences and clinical practice.

Requirements for Matriculation

The requirement for admission is graduation from an accredited high or

preparatory school which requires for graduation not less than 15 units of high school work obtained in a four-year course or its equivalent. In case an applicant is not a graduate of a high or preparatory school, as defined above, the full equivalent of such education in each individual case must be established and attested by the highest public educational officer of the State.

An application blank may be obtained from the office of the Dean. The applicant must note on this form all requested information, including the names of all schools attended, together with dates of attendance. When filing the executed form with the Registrar, Baltimore, it is necessary to attach thereto an investigation fee of two dollars.

The applicant should not send diplomas or certificates. The Registrar of the University of Maryland will secure all necessary credentials after the application has been received. One should not make application unless reasonably certain that preparation is sufficient, or unless intending to complete preparation if insufficient. Ample time should be allowed for securing credentials and investigating schools. If the applicant qualifies for the study of the profession, a certificate will be issued; otherwise, notice will be given concerning whatever deficiency exists.

All applicants for admission must present certificate of recommendation from principal of high school from which the applicant has graduated.

Advanced Standing and Transfers

Students who present in addition to high school requirements credit in academic subjects appearing in the first and second years of the dental course will be allowed credit for all such subjects, provided such credits are the full equivalent of such subjects offered in the College of Arts and Sciences of the University of Maryland.

Applicants presenting thirty or more semester hours of academic work in an acceptable college or university which meets the minimum requirement fixed for admission by the Dental Educational Council of America will be given standing in the second year, and may complete the dental course in four years.

Applicants desiring to transfer from another recognized dental school must show record of creditable scholarship in all years previously devoted to the study of dentistry. No applicant carrying conditions or failures in any year of his previous dental instruction will be considered. All records must show an average grade of 80% or over. Applicants whose records show habitual failures and conditions will not be considered for admission. The transferring student must satisfy the preliminary educational requirement outlined under "Requirements for Matriculation."

Attendance Requirements

In order to receive credit for a full session, each student must have entered and be in attendance on the day the Regular Session opens, at

which time lectures to all classes begin, and remain until the close of the session, the dates for which are announced in the Calendar of the Annual Catalogue.

Regular attendance is demanded of all. Students with less than eighty-five per cent. attendance in any course will be denied the privilege of final examination in any and all such courses. In certain unavoidable circumstances of absence the Dean may honor excuses, but students with less than a minimum of eighty-five per cent. attendance will not be promoted to the next succeeding class.

In cases of serious personal illness, as attested by a physician, students may register not later than the twentieth day following the advertised opening of the Regular Session. Students may register and enter not later than ten days after the beginning of the session, but such delinquency will be charged as absence from the class.

Promotion

To be promoted to the next succeeding year a student must have passed courses amounting to at least 80 per cent. of the total schedule hours of the year, and must have an average of 80 per cent. on all subjects passed.

A grade of 75 per cent. is passing. A grade between 60 per cent. and passing is a condition. A grade below 60 per cent. is a failure. A condition may be removed by a re-examination. In such effort, failure to make a passing mark is recorded as a failure in the course. A failure can be removed only by repeating the course. A student with combined conditions and failures amounting to 40 per cent. of the schedule hours of the year will not be permitted to proceed with his class. Students carrying conditions will not be admitted to senior standing; students in all other classes may carry one condition to the next succeeding year. All conditions and failures must be removed within twelve months from the time they were incurred.

Equipment

A complete list of all necessary instruments and materials for technic and clinic courses and text books for lecture courses will be announced for the various classes. Each student will be required to provide himself with whatever is necessary to meet the needs of his course and present same to responsible class officer for inspection. No student will be permitted to go on with his class who does not meet this requirement.

Deportment

The profession of dentistry demands, and the School of Dentistry requires evidence of good moral character of its students. The conduct of the student in relation to his work and fellow students will indicate his fitness to be taken into the confidence of the community as a professional man. Integrity, sobriety, temperate habits, truthfulness, respect for authority

and associates, and honesty in the transaction of business affairs as a student will be considered as evidence of good moral character necessary to granting a degree.

Requirements for Graduation

The degree of Doctor of Dental Surgery is conferred upon a candidate who has fully met the following conditions:

1. Documentary evidence that he has attained the age of 21 years.

2. A candidate for graduation shall have attended at least a full five-year course of study, the first year of which shall include 30 semester hours of college work as outlined in the course of study in force in this school, or must present one full year of college work for admission and four years study in the dental curriculum, the last year of which shall have been spent in this institution.

3. He will be required to show a general average of 80 per cent. during the full course of study.

4. He shall have satisfied all technic and clinic requirements of the various departments.

5. He shall have paid all indebtedness to the college prior to the beginning of final examinations, and must have adjusted his financial obligations in the community satisfactorily to those to whom he may be indebted.

Fees

Application fee (paid at time of filing formal application for admission)	$2.00
Matriculation fee (paid at time of enrollment)	10.00
Tuition for the session, resident student	250.00
Tuition for the session, non-resident student	300.00
Dissecting fee (first semester, sophomore year)	15.00
Laboratory fee (each session)	20.00
Locker fee—freshman, sophomore, and pre-junior years (first semester)	3.00
Locker fee—junior and senior years (first semester)	5.00
Laboratory breakage deposit—freshman, sophomore, and pre-junior years (first semester)	5.00
Graduation fee (paid with second semester fees of senior year)	15.00
Penalty fee for late registration	5.00
Examinations taken out of class and re-examinations	5.00
One certified transcript of record will be issued to each student free of charge. Each additional copy will be issued only on payment of	1.00

Matriculation fee must be paid prior to September 15.

The registration of a student in any school or college of the University

shall be regarded as a registration in the University of Maryland, but when such student transfers to a Professional School of the University or from one Professional School to another, he must pay the usual matriculation fee required by each Professional School.

A student who neglects or fails to register prior to or within the day or days specified for his school, will be called upon to pay a fine of $5.00. The last day of registration with fine added to regular fees is Saturday at noon of the week in which instruction begins, following the specified registration period. (This rule may be waived only on the written recommendation of the Dean.)

Each student is required to fill in a registration card for the office of the Registrar, and pay to the Comptroller one-half of the tuition fee in addition to all other fees noted as payable first semester before being admitted to class work at the opening of the session. The balance of tuition and second semester fees must be in the hands of the Comptroller on the registration day for the second semester.

According to the policy of the Dental School no fees will be returned. In case the student discontinues his course, any fees paid will be credited to a subsequent course, but are not transferable.

The above requirements will be rigidly enforced.

Definition of Residence and Non-Residence

Students who are minors are considered to be resident students if, at the time of their registration their parents* have been residents of this State for at least one year.

Adult students are considered to be resident students if, at the time of their registration, they have been residents of this State for at least one year.

The status of the residence of a student is determined at the time of his first registration in the University, and may not thereafter be changed by him unless, in the case of a minor, his parents* move to and become legal residents of this State by maintaining such residence for at least one full calendar year. However, the right of the student (minor) to change from a non-resident to a resident status must be established by him prior to registration for a semester in any academic year.

Summer Courses

Aside from and independent of the regular session, special courses are offered during the summer recess. The course in clinical instruction is conducted from June 1 to August 1 and from September 1 to 21 inclusive. The course is open only to students registered in the college. It offers opportunities to students carrying conditions in clinic from the preceding session as well as those who desire to gain more extended practice during

* The term "parents" includes persons who, by reason of death or other unusual circumstances, have been legally constituted the guardians of or stand *in loco parentis* to such minor students.

their training period. The clinics are under the direction of capable demonstrators, full credit being given for all work done.

The Gorgas Odontological Society

The Gorgas Odontological Society was organized in 1914 as an honorary student dental society with scholarship as a basis for admission. The society is named after Dr. Ferdinand J. S. Gorgas, a pioneer in dental education, a teacher of many years experience, and during his life a great contributor to dental literature. It was with the idea of perpetuating his name that the society adopted it.

Students become eligible for membership at the beginning of their junior year if, during their preceding years of the dental course, they have attained a general average of 85 per cent. or more in all of their studies. Meetings are held once each month, and are addressed by prominent dental and medical men, an effort being made to obtain speakers not connected with the University. The members have an opportunity, even while students, to hear men associated with other educational institutions.

Omicron Kappa Upsilon

Phi Chapter of Omicron Kappa Upsilon honorary dental fraternity was chartered at the Baltimore College of Dental Surgery, Dental School, University of Maryland, during the session of 1928-29. Membership in the fraternity is awarded to a number not exceeding twelve per cent. of the graduating class. This honor is conferred upon students who through their professional course of sudy creditably fulfill all obligations as students, and whose conduct, earnestness, and evidence of good character and high scholarship recommend them to election.

Scholarships

A number of scholarships from various organizations and educational foundations have been available to students in the School of Dentistry. These scholarships are offered on the basis of excellence in scholastic attainment and the need on the part of students for assistance in completing their course in dentistry. It has been the policy of the Faculty to recommend only students in the last two years for such privileges.

The Henry Strong Educational Foundation—From this fund, established under the will of General Henry Strong, of Chicago, an annual allotment is made to the Baltimore College of Dental Surgery, Dental School, University of Maryland, for loan scholarships available for the use of young men and women students under the age of twenty-five. Recommendations for the privileges of these scholarships are limited to students in the junior and senior years. Only students who through stress of circumstances require financial aid and who have demonstrated excellence in educational progress are considered in making nominations to the secretary of this fund.

The Edward S. Gaylord Educational Endowment Fund—Under a provision of the will of the late Dr. Edward S. Gaylord, of New Haven, Conn., an amount approximating $16,000 was left to the Baltimore College of Dental Surgery, Dental School, University of Maryland, the proceeds of which are to be devoted to aiding worthy young men in securing dental education.

Alumni Association

The first annual meeting of the Society of the Alumni of the Baltimore College of Dental Surgery was held in Baltimore, March 1, 1849. This organization has continued in existence to the present, its name having been changed to The National Alumni Association of the Baltimore College of Dental Surgery, Dental School, University of Maryland.

THE SCHOOL OF LAW

ROGER HOWELL, *Dean*

THE FACULTY COUNCIL

HON. HENRY D. HARLAN, A.M., LL.B., LL.D.
RANDOLPH BARTON, JR., ESQ., A.B., LL.B.
EDWIN T. DICKERSON, Esq., A.M., LL.B.
CHARLES MCHENRY HOWARD, Esq., A.B., LL.B.
HON. MORRIS A. SOPER, A.B., LL.B.
HON. W. CALVIN CHESNUT, A.B., LL.B.
G. RIDGELY SAPPINGTON, Esq., LL.B.
ROGER HOWELL, Esq., A.B., Ph.D., LL.B.
EDWIN G. W. RUGE, Esq., A.B., LL.B.
A. J. CASNER, A.B., LL.B.
G. KENNETH REIBLICH, A.B., Ph.D., J.D.

While the first faculty of law of the University of Maryland was chosen in 1813, and published in 1817 "A Course of Legal Study Addressed to Students and the Profession Generally," which the North American Review pronounced to be "by far the most perfect system for the study of law which has ever been offered to the public," and which recommended a course of study so comprehensive as to require for its completion six or seven years, no regular school of instruction in law was opened until 1823. The institution thus established was suspended in 1836 for lack of proper pecuniary support. In 1869 the School of Law was organized, and in 1870 regular instruction therein was again begun. From time to time the course has been made more comprehensive, and the staff of instructors increased in number. Its graduates now number more than three thousand, and included among them are a large proportion of the leaders of the Bench and Bar of the State and many who have attained prominence in the profession elsewhere.

The Law School has been recognized by the Council of the Section of Legal Education of the American Bar Association as meeting the standards of the American Bar Association, and has been placed upon its approved list.

The Law School is a member of the Association of American Law Schools, an association composed of the leading law schools in the United States, member schools being required to maintain certain high standards relating to entrance requirements, faculty, library, and curriculum.

The Law School is also registered as an approved school on the New York Regents' list.

The new Law School Building, erected in 1931, is located at Redwood and Greene Streets in Baltimore. In addition to classrooms and offices for

the Law faculty, it contains a large auditorium, practice-court room, students' lounge and locker rooms, and the law library, the latter containing a collection of carefully selected text-books, English and American reports, leading legal periodicals, digests, and standard encyclopedias. No fee is charged for the use of the library, which is open from 9.00 A. M. to 10.30 P. M., except on Saturday, when it closes at 5.00 P. M.

Course of Instruction

The School of Law is divided into two divisions, the Day School and the Evening School. The same curriculum is offered in each school, and the standards of work and graduation requirements are the same.

The Day School course covers a period of three years of thirty-two weeks each, exclusive of holidays. The class sessions are held during the day, chiefly in the morning hours. The Practice Court sessions are held on Monday evenings from 8.00 to 10.00 P. M.

The Evening School course covers a period of four years of thirty-six weeks each, exclusive of holidays. The class sessions are held on Monday, Wednesday, and Friday evenings of each week from 6.30 to 9.30 P. M. This plan leaves the alternate evenings for study and preparation by the student.

The course of instruction in the School of Law is designed thoroughly to equip the student for the practice of his profession when he attains the Bar. Instruction is offered in the various branches of the common law, of equity, of the statute law of Maryland, and of the public law of the United States. The course of study embraces both the theory and practice of the law, and aims to give the student a broad view of the origin, development, and function of law, together with a thorough practical knowledge of its principles and their application. Analytical study is made of the principles of substantive and procedural law, and a carefully directed practice court enables the student to get an intimate working knowledge of procedure.

Special attention is given to the statutes in force in Maryland, and to any peculiarities of the law in that State, where there are such. All of the subjects upon which the applicant for the Bar in Maryland is examined are included in the curriculum. But the curriculum includes all of the more important branches of public and private law, and is well designed to prepare the student for admission to the Bar of other States.

Requirements for Admission

The requirements for admission are those of the Association of American Law Schools. Applicants for admission as candidates for a degree are required to produce evidence of the completion of at least two years of college work; that is, the completion of at least one-half the work acceptable for a Bachelor's degree granted on the basis of a four-year period of study by the University of Maryland or other principal college or university in this State.

To meet this requirement, a candidate for admission must present at least sixty semester hours (or their equivalent) of college work taken in an institution approved by standard regional accrediting agencies and exclusive of credit earned in non-theory courses in military science, hygiene, domestic arts, physical education, vocal or instrumental music, or other courses without intellectual content of substantial value. Such pre-legal work must be work done in residence, and no credit is allowed for work done in correspondence or extension courses.

In compliance with the rules of the Association of American Law Schools, a limited number of special students, not exceeding 10 per cent of the average number of students admitted as beginning regular law students during the two preceding years, applying for admission with less than the academic credit required of candidates for the law degree, may be admitted as candidates for the certificate of the school, but not for the degree, where, in the opinion of the Faculty Council, special circumstances, such as the maturity and apparent ability of the student, seem to justify a deviation from the rule requiring at least two years of college work. Such applicants must be at least twenty-three years of age and specially equipped by training and experience for the study of law.

Combined Program of Study Leading to the Degrees of Bachelor of Arts and Bachelor of Laws

The University offers a combined program in arts and law leading to the degrees of Bachelor of Arts and Bachelor of Laws.

Students pursuing this combined program in college and pre-legal subjects will spend the first three years in the College of Arts and Sciences at College Park. The fourth year they will register in the School of Law, and upon the successful completion of the work of the first year in the Day School, or the equivalent work in the Evening School, the degree of Bachelor of Arts will be awarded. The degree of Bachelor of Laws will be awarded upon the completion of the work prescribed for graduation in the School of Law.

Details of the combined course may be had upon application to the Registrar, University of Maryland, College Park, Md., or by reference to page 100.

Advanced Standing

Students complying with the requirements for admission to the school who have, in addition, successfully pursued the study of law elsewhere in an approved law school, may, in the discretion of the Faculty Council, upon presentation of a certificate from such law school showing an honorable dismissal therefrom, and the successful completion of equivalent courses therein, covering at least as many hours as are required for such subjects in this school, receive credit for such courses and be admitted to advanced standing. No credit will be given for study pursued in a law office, and

no degree will be conferred until after one year of residence and study at this school.

Fees and Expenses

The charges for instruction are as follows:

Registration fee to accompany application	$ 2.00
Matriculation fee, payable on first registration	10.00
Diploma fee, payable upon graduation	15.00
Locker fee	3.00
Tuition fee, per annum:	
Day School	$200.00
Evening School	150.00

An additional tuition fee of $50.00 per annum must be paid by students who are non-residents of the State of Maryland.

The tuition fee is payable in two equal instalments, one-half at the time of registration for the first semester, and one-half at the time of registration for the second semester.

Further information and a special catalogue of the School of Law may be had upon application to the School of Law, University of Maryland, Redwood and Greene Streets, Baltimore, Md.

THE UNIVERSITY OF MARYLAND
SCHOOL OF MEDICINE
AND
COLLEGE OF PHYSICIANS AND SURGEONS

J. M. H. ROWLAND, *Dean*

MEDICAL COUNCIL

ARTHUR M. SHIPLEY, M.D., Sc.D.
WILLIAM S. GARDNER, M.D.
STANDISH MCCLEARY, M.D.
JULIUS FRIEDENWALD, A.M., M.D.
J. M. H. ROWLAND, M.D.
ALEXIUS MCGLANNAN, A.M., M.D., LL.D.
HUGH R. SPENCER, M.D.
H. BOYD WYLIE, M.D.
CARL L. DAVIS, M.D.
MAURICE C. PINCOFFS, S.B., M.D.
FRANK W. HACHTEL, M.D.
EDWARD UHLENHUTH, Ph.D.
CLYDE A. CLAPP, M.D.

The School of Medicine of the University of Maryland is one of the oldest foundations for medical education in America, ranking fifth in point of age among the medical colleges of the United States. In the school building at Lombard and Greene Streets in Baltimore was founded one of the first medical libraries and the first medical college library in the United States.

Here for the first time in America dissecting was made a compulsory part of the curriculum; here instruction in Dentistry was first given (1837); and here were first installed independent chairs for the teaching of diseases of women and children (1867), and of eye and ear diseases (1873).

This School of Medicine was one of the first to provide for adequate clinical instruction by the erection in 1823 of its own hospital, and in this hospital intramural residency for senior students first was established.

Clinical Facilities

The University Hospital, property of the University, is the oldest institution for the care of the sick in Maryland. It was opened in September, 1823, and at that time consisted of four wards, one of which was reserved for eye cases.

Besides its own hospital, the School of Medicine has control of the clinical facilities of the Mercy Hospital, in which were treated last year 30,000 persons.

In connection with the University Hospital, an outdoor obstetrical clinic is conducted. During the past year 1,631 cases were treated in the Lying In Hospital and outdoor clinic.

The hospital now has about 275 beds—for medical, surgical, obstetrical, and special cases; and furnishes an excellent supply of clinical material for third- and fourth-year students.

Dispensaries and Laboratories

The dispensaries associated with the University Hospital and Mercy Hospital are organized on a uniform plan in order that teaching may be the same in each. Each dispensary has departments of Medicine, Surgery, Obstetrics, Children, Eye and Ear, Genito-Urinary, Gynecology, Gastro-Enterology, Neurology, Orthopedics, Proctology, Dermatology, Throat and Nose, and Tuberculosis. All students in their junior year work two days of each week in one of these dispensaries; all students in the senior year work one hour each day; 140,000 cases were treated last year, which fact gives an idea of the value of these dispensaries for clinical teaching.

Laboratories conducted by the University purely for medical purposes are the Anatomical, Chemical, Experimental Physiology, Physiological Chemistry, Histology and Embryology, Pathology, Bacteriology and Immunology, Clinical Pathology, Pharmacology, and Operative Surgery.

Prizes and Scholarships

The following prizes and scholarships are offered in the School of Medicine. (For details see School of Medicine Bulletin.)

Faculty Medal: Dr. A. Bradley Gaither Prize; The Dr. Samuel Leon Frank Scholarship; Hitchcock Scholarships; The Randolph Winslow Scholarship; The University Scholarships; The Frederica Gehrmann Scholarship; The Dr. Leo Karlinsky Scholarship; The Clarence and Genevra Warfield Scholarships; Israel and Cecilia A. Cohen Scholarships.

Requirements for Admission

Admission to the curriculum in medicine is by a completed Medical Student Certificate issued by the Registrar of the University of Maryland, Baltimore, Maryland. This certificate is obtained on the basis of satisfactory credentials, or by examination and credentials, and is essential for admission to any class.

The requirements for the issuance of the Medical Student's Certificate are as follows:

(a) The completion of a standard four-year high school course or the equivalent, and in addition:

*(b) Two years, sixty semester hours of basic college credits, including chemistry, biology, physics, modern foreign language, and English, and exclusive of Military Drill or Physical Education as outlined in the Pre-Medical Curriculum, or its equivalent, will meet the minimum requirement for admission. Students are strongly recommended, however, to complete the three-year pre-medical curriculum of 99 semester hours before making application for admission.

Women are admitted to the School of Medicine of this University.

Expenses

The following are the fees for students in the School of Medicine:

Matriculation	*Resident—Non-Resident*	*Laboratory*	*Graduation*
$10.00 (only once)	$350.00 $500.00	$25.00 (yearly)	$15.00

Estimated living expenses for students in Baltimore:

Items	*Low*	*Average*	*Liberal*
Books	$50	$75	$100
College Incidentals	20	20	20
Board, eight months	200	250	275
Room rent	64	80	100
Clothing and laundry	50	80	150
All other expenses	25	50	75
Total	$409	$556	$720

* For admission to the Pre-Medical Curriculum the requirements are the same as for the freshman class in the College of Arts and Sciences of the University with the prescribed addition of two years of one foreign language. (See Section I, "Entrance.")

SCHOOL OF NURSING

ANNIE CRIGHTON, R.N., *Director and Superintendent of Nurses.*

The University of Maryland School of Nursing was established in the year 1889. Since that time it has been an integral part of the University of Maryland Hospital.

The school is non-sectarian, the only religious services being morning prayers.

The University of Maryland Hospital is a general hospital containing about 275 beds. It is equipped to give young women a thorough course of instruction and practice in all phases of nursing, including experience in the operating room.

The school offers the student nurse unusual advantages in its opportunity for varied experience and in its thorough curriculum taught by well-qualified instructors and members of the medical staff of the University.

Programs Offered

The program of study of the School is planned for two groups of students: (a) The three-year group; (b) the five-year group.

Requirements for Admission

A candidate for admission to the School of Nursing must be a graduate of an accredited high school or other recognized preparatory school, and must present record showing that she has completed satisfactorily the required amount of preparatory study. Preference will be given to students who rank in the upper third of the graduating class in their respective preparatory schools.

Candidates are required to present 15 units for entrance: Required (7), and Elective (8).

Required: English (I, II, III, IV), 3 units; algebra to quadratics, 1 unit; plane geometry, 1 unit; history, 1 unit; science, 1 unit. Total, 7 units.

Elective: Astronomy, biology, botany, chemistry, civics, drawing, economics, general science, geology, history, home economics, vocational subjects, languages, mathematics, physical geography, physics, zoology, or any other subject offered in a standard high school or preparatory school for which graduation credit is granted toward college or university entrance. Eight units must be submitted from this group, of which not more than four units may pertain to vocational subjects.

In addition to the above, students must meet certain other definite requirements in regard to health, age, and personal fitness for nursing work.

The preferable age for students registering for the three-year course is 20 to 35 years, although students may be accepted at the age of 18.

Women of superior education and culture are given preference, provided they meet the requirements in other particulars. If possible, a personal interview with the Director of the School should be arranged on Tuesday or Friday from 11:00 A. M. to 12:00 M.

Blank certificates will be furnished upon application to the Director of the School of Nursing, University of Maryland Hospital, Baltimore, Maryland.

Registration With Maryland State Board of Examiners of Nurses

By regulation of the Maryland State Board of Examiners of Nurses, all students entering schools of nursing in Maryland must, at the beginning of their course, register with the Board in order to be eligible for examination and license on completion of this course. Blanks necessary for this purpose will be sent with application forms. A fee of $2 is charged for registration.

The fitness of the applicant for the work and the propriety of dismissing or retaining her at the end of her term of probation are left to the decision of the Director of the School. Misconduct, disobedience, insubordination, inefficiency, or neglect of duty are causes for dismissal at any time by the President of the University.

The requirements for admission to the five-year program of the School of Nursing are the same as for other colleges. (Special catalog will be sent upon request.) The three-year program is designed to meet the requirements for the diploma in Nursing and comprises the work of the first, second, and third hospital years.

Admission to the School

Students for the spring term are admitted in February and those for the fall term in September or October, and for the five-year course in September.

Hours of Duty

During the preparatory period the students are engaged in class work for the first four months with no general duty in the hospital, and for the remainder of this period they are sent to the wards on eight-hour duty. During the first, second, and third years the students are on eight-hour day duty and nine-hour night duty with six hours on holidays and Sundays. The night-duty periods are approximately two months each with one day at the termination of each term for rest and recreation. The period of night duty is approximately five to six months during the three years.

The first four months of the preparatory period are devoted to theoretical instruction given entirely in the lecture and demonstration rooms of the training school, hospital, and medical school laboratories. The average number of hours per week in formal instruction, divided into lecture and laboratory periods, is 30 hours, and includes courses in Anatomy, Physiology,

Cookery and Nutrition, Dosage and Solution, Hygiene, Bacteriology, Chemistry, Materia Medica, Practical Nursing, Bandaging, Ethics, and History of Nursing. During the last two months of the probation period the students are placed on duty in the hospital wards for instruction in bedside nursing, and are expected to perform the duties assigned to them by the Director of the School. At the close of the first semester the students are required to pass satisfactorily both written and practical tests; failure to do so will be sufficient reason for terminating the course at this point.

Sickness

A physician is in attendance each day, and when ill all students are cared for gratuitously. The time lost through illness in excess of two weeks, during the three years, must be made up. Should the authorities of the school decide that through the time lost the theoretical work has not been sufficiently covered to permit the student to continue in that year, it will be necessary for her to continue her work with the next class.

Vacations

Vacations are given between June and September. A period of four weeks is allowed the student at the completion of the first year and of the second year.

Expenses

A fee of $50.00, payable on entrance, is required from all students. This will not be returned. A student receives her board, lodging, and a reasonable amount of laundry from the date of entrance. During her period of probation she provides her own uniforms, obtained through the hospital at a nominal cost. After being accepted as a student nurse she wears the uniform supplied by the hospital. The student is also provided with textbooks and shoes. Her personal expenses during the course of training and instruction will depend entirely upon her individual habits and tastes.

THREE-YEAR PROGRAM

First Year

The first year is divided into two periods: the first semester, or the preparatory period (6 months), and the second semester.

First Semester

In the first semester, or preparatory term, the student is given practical instruction in the following:

I. The making of hospital and surgical supplies, the cost of hospital material, apparatus, and surgical instruments.

II. Household economics and preparation of foods particularly applied to invalid cooking and nutrition.

During this term the practical work is done under constant supervision, and teaching is given correlatively.

Excursions are made to filtration and sewerage plants, markets, hygienic dairies, linen rooms, laundry, and store room.

At the close of the first half of the first year the students are required to pass satisfactorily both written and oral tests, and failure to do so will be sufficient reason for terminating the course at this point.

Subsequent Course

The course of instruction, in addition to the first semester, or the preparatory period, occupies two and one-half years, and students are not accepted for a shorter period, except in special instances.

After entering the wards, the students are constantly engaged in practical work under the immediate supervision and direction of the head nurses and instructors.

Throughout the three years, regular courses of instruction and lectures are given by members of the medical and nursing school faculties.

First Year

Second Semester

During this period the students receive theoretical instruction in Massage, General Surgery, Urinalysis and Laboratory Methods, Diet in Disease, and Advanced Nursing Procedures.

Practical instruction is received in the male and female, medical, surgical, and children's wards.

Second Year

During this period the theoretical instruction includes Pediatrics, General Medicine, Infectious Diseases, Obstetrics, Gynecology, Orthopedics, Skin and Venereal, Eye, Ear, Nose, and Throat, X-ray and Radium, and Dental. The practical work provides experience in the nursing of obstetrical and gynecological patients, in the operating rooms and the out-patient department.

Third Year

Theoretical instruction includes Psychiatry, Public Sanitation, Professional Problems, and Survey of the Nursing Field.

During this period the student receives short courses of lectures on subjects of special interest. These include a consideration of the work of institutions, of public and private charities, of settlements and the various branches of professional work in nursing.

Experience is given in executive and administrative work for those showing exceptional ability in the Third Year. With these students conferences are held on administration and teaching problems.

Attendance at Classes

Attendance is required at all classes. Absences are excused by the Director of the School only in case of illness or absence from the school.

Examinations

These are both written and oral, and include practical tests. The standing of the student is based upon the general character of work throughout the year as well as the results of the examinations. Students must pass upon all subjects of each year before entering upon the work of the following year.

Graduation

The diploma of the school will be awarded to those who have completed satisfactorily the full term of three years and have passed successfully the final examinations.

Scholarships

One scholarship has been established by the Alumnae of the Training School, which entitles a nurse to a six-weeks course at Teachers College, Columbia University, New York. This scholarship is awarded at the close of the third year to the student whose work has been of the highest excellence, and who desires to pursue post-graduate study and special work. There are two scholarships of the value of $50.00 each, known as the Edwin and Leander M. Zimmerman and the Elizabeth Collins Lee prizes. An Alumnae Pin is presented by the Woman's Auxiliary Board to a student who at the completion of three years shows marked executive ability. A prize of $25.00 is given by Mrs. John L. Whitehurst to a student who at the completion of three years shows exceptional executive ability.

Five-Year Program

In addition to the regular three-year course of training the University offers a combined Academic and Nursing program leading to the degree of Bachelor of Science and a Diploma in Nursing.

The first two years of the course (or pre-hospital period), consisting of 68 semester hours, as shown on page — of this catalogue, are spent in the College of Arts and Sciences of the University, during which period the student has an introduction to the general cultural subjects which are considered fundamental in any college training. At least the latter of these two years must be spent in residence at College Park, in order that the student may have her share in the social and cultural activities of college life. The last three years are spent in the School of Nursing in Baltimore

or in the Training School of Mercy Hospital, which is also affiliated with the School of Medicine of the University. In the fifth year of the combined program certain elective courses such as Public Health Nursing, Nursing Education, Practical Sociology, and Educational Psychology are arranged.

Degree and Diploma

The Diploma in Nursing will be awarded to those who have completed satisfactorily the three-years' program.

The degree of Bachelor of Science and the Diploma in Nursing are awarded to students who complete successfully the prescribed combined academic and nursing program.

SCHOOL OF PHARMACY

A. G. Du Mez, *Dean*

Faculty Council

A. G. Du Mez, Ph.G., B.S., M.S., Ph.D.
Glenn L. Jenkins, Ph.G., B.S., M.S., Ph.D.
E. F. Kelly, Phar.D.
Charles C. Plitt, Ph.G., Sc.D.
Marvin R. Thompson, Ph.G., B.S.
J. Carlton Wolf, B.Sc., Phar.D.
B. Olive Cole, Phar.D., LL.B.
H. E. Wich, Phar.D.

The School of Pharmacy began its existence as the Maryland College of Pharmacy. The latter was organized in 1841, and operated as an independent institution until 1904, when it amalgamated with the group of professional schools in Baltimore then known as the University of Maryland. It became a department of the present University when the old University of Maryland was merged with the Maryland State College in 1920. With but one short intermission just prior to 1865, it has continuously exercised its function as a teaching institution.

Location

The School of Pharmacy is located at Lombard and Greene Streets, in close proximity to the Schools of Medicine, Law, and Dentistry.

Policy and Degrees

The chief objective of the school is to prepare its matriculants for the intelligent practice of dispensing pharmacy, but it also endeavors to furnish the instruction necessary to the intelligent pursuit of work in the other branches of the profession and in pharmaceutical research. Upon satisfactory completion of the four years of prescribed work, the degree of Bachelor of Science in Pharmacy (B.S. in Phar.) is awarded, which admits the holder to the board examinations in the various states for registration as a pharmacist.

Combined Curriculum in Pharmacy and Medicine

A combined curriculum has been arranged with the School of Medicine of the University by which students may obtain the degree of Bachelor of Science in Pharmacy and Doctor of Medicine in seven years. Students who successfully complete the first three years of the course in Pharmacy and

an additional four semester hours in Zoology, and show that they are qualified by character and scholarship to enter the medical profession, are eligible for admission into the School of Medicine of the University; and upon the successful completion of the first two years of the medical course will be awarded the degree of Bachelor of Science in Pharmacy by the School of Pharmacy.

This privilege will be open only to students who maintain a uniformly good scholastic record during the first two years of the course in Pharmacy; and those who wish to avail themselves of it must so advise the School of Pharmacy before entering upon the work of the third year.

Recognition

This school holds membership in the American Association of Colleges of Pharmacy. The object of the Association is to promote the interests of pharmaceutical education; and all institutions holding membership must maintain certain minimum requirements for entrance and graduation. Through the influence of this Association, uniform and higher standards of education have been adopted from time to time; and the fact that several States by law or by Board ruling recognize the standards of the Association is evidence of its influence.

The school is registered in the New York Department of Education, and its diploma is recognized in all States.

Requirements for Admission

The applicant must have completed a four-year standard high school course or its equivalent. A minimum age of seventeen years is demanded except when the candidate is a graduate of an accredited high school or of an institution of equal grade.

Admission to the course in Pharmacy is by certificate issued by the Registrar of the University of Maryland, Lombard and Greene Streets, Baltimore, Md. The certificate is issued on the basis of credentials, or by examination, or by both. Evaluation of credentials can be made only by the Registrar, and all applicants, whether their entrance qualifications are clearly satisfactory as per the requirements for matriculation, outlined above, or not, must secure a certificate from the Registrar to be presented to the School of Pharmacy before they can be matriculated.

Applicants should secure an application blank for entrance from the Registrar of the University or from the office of the School of Pharmacy, and return it properly executed at the earliest possible date. Diplomas or certificates need not be sent. The Registrar will secure all credentials desired after the application blank has been received, and the applicant will be notified of the result of the investigation.

Applicants whose credentials do not meet the requirements must pass a satisfactory examination in appropriate subjects given by a recognized College Entrance Examination Board, to make up the required number of units. A fee is charged for these examinations.

Credit will be given in proper amount for pharmaceutical subjects comprising our curriculum to those students coming from schools of pharmacy holding membership in the American Association of Colleges of Pharmacy, provided they present a proper certificate of the satisfactory completion of such subjects and meet the entrance requirements of this school. Credit for general educational subjects will be given to students presenting evidence of having completed work equal in value to that prescribed.

Requirements for Graduation

1. The candidate must possess a good moral character.
2. He must have completed successsfully all of the work specified for the four-year course.
3. The last year of work, at least, must have been done in residence.

Matriculation and Registration

The Matriculation Ticket must be procured from the office of the School of Pharmacy, and must be taken out before entering the classes. All students after matriculation are required to register at the Office of the Registrar. The last date of matriculation is October 5, 1933.

Expenses

Matriculation	*Tuition* *Resident—Non-Resident*		*Laboratory and Breakage*	*Graduation*
$10.00 (only once)	$200.00	$250.00	$40.00 (yearly)	$15.00

Tuition for the first semester and laboratory and breakage fee shall be paid to the Comptroller at the time of registration; and tuition for the second semester and graduation fee (the latter returned in case of failure) on or before February 10, 1934.

A bulletin giving details of the course in Pharmacy may be obtained by addressing the School of Pharmacy, University of Maryland, Baltimore, Maryland.

STATE BOARD OF AGRICULTURE

816 Fidelity Building, Baltimore, Maryland.

The law provides that the personnel of the State Board of Agriculture shall be the same as the Board of Regents of the University of Maryland. The President of the University is the Executive Officer of the State Board of Agriculture.

General Powers of Board: The general powers of the Board as stated in Article 7 of the Laws of 1916, Chapter 391, are as follows:

"The State Board of Agriculture shall investigate the conditions surrounding the breeding, raising, and marketing of live stock and the products thereof, and contagious and infectious diseases affecting the same; the raising, distribution, and sale of farm, orchard, forest, and nursery products, generally, and plant diseases and injurious insects affecting the same; the preparation, manufacture, quality analysis, inspection, control, and distribution of animal and vegetable products, animal feeds, seeds, fertilizers, agricultural lime, agricultural and horticultural chemicals, and biological products; and shall secure information and satistics in relation thereto and publish such information, statistics, and the results of such investigations at such times and in such manner as to it shall seem best adapted to the efficient dissemination thereof; and except where such powers and duties are by law conferred or laid upon other boards, commissions, or officials, the State Board of Agriculture shall have general supervision, direction, and control of the herein recited matters, and generally of all matters in any way affecting or relating to the fostering, protection, and development of the agricultural interests of the State, including the encouragement of desirable immigration thereto, with power and authority to issue rules and regulations in respect thereof not in conflict with the Constitution and Laws of the State or the United States, which shall have the force and effect of law, and all violations of which shall be punished as misdemeanors are punished at common law; and where such powers and duties are by law conferred or laid on other governmental agencies may co-operate in the execution and performance thereof, and when so co-operating each shall be vested with such authority as is now or may hereafter by law be conferred on the other. The powers and duties herein recited shall be in addition to and not in limitation of any power and duties which now are or hereafter may be conferred or laid upon said board."

Under the above authority and by special legislation, all regulatory work is conducted under the general authority of the State Board. This includes the following services:

LIVE STOCK SANITARY SERVICE

JAMES B. GEORGE, *Director.*

816 Fidelity Building, Baltimore, Maryland.

This service has charge of the regulatory work in connection with the control of disease among animals. It is authorized by law to control outbreaks of rabies, anthrax, blackleg, scabies, Johne's disease, contagious abortion, etc. This service is also charged, in co-operation with the U. S. Bureau of Animal Industry, with the eradication of bovine tuberculosis. The hog cholera control work, which is conducted in co-operation with federal authorities, is also conducted under the general jurisdiction of this service. Much of the laboratory work necessary in conjunction with the identification of disease among animals is done in the University laboratories at College Park.

STATE HORTICULTURAL DEPARTMENT

College Park, Maryland.

The State Horticultural Law was enacted in 1898. It provides for the inspection of all nurseries and the suppression of injurious insects and diseases affecting plants of all kinds. The work of the department is conducted in close association with the departments of Entomology and Pathology of the University. The regulatory work is conducted under the authority of the law creating the department as well as the State Board of Agriculture. For administrative purposes, the department is placed under the Extension Service of the University on account of the close association of the work. The officers of the department are:

E. N. Cory, State Entomologist
C. E. Temple, State Pathologist
T. B. Symons, Director of the Extension Service

FEED, FERTILIZER, AND LIME INSPECTION SERVICE

College Park, Maryland.

The Feed, Fertilizer, and Lime Inspection Service, a branch of the chemistry department of the University, is authorized to enforce the State Regulatory Statutes controlling the purity and truthful labeling of all feeds, fertilizers, and limes that are offered or exposed for sale in Maryland. This work is conducted under the general direction of the chemistry department, College of Arts and Sciences, and is under the direction of Dr. L. B. Broughton, State chemist.

L. B. Broughton, Ph.D.	State Chemist
L. E. Bopst, B.S.	Associate State Chemist
E. C. Donaldson, M.S.	Chief Inspector
W. J. Footen	Inspector
E. M. Zentz	Inspector
H. R. Walls	Assistant Chemist and Micro-Analyst
W. C. Supplee, Ph.D.	Assistant Chemist

L. H. VanWormer.....Assistant Chemist
R. E. Baumgardner, B.S.....Assistant Chemist
M. E. High.....Laboratory Assistant

SEED INSPECTION SERVICE

College Park, Maryland

The Seed Inspection Service is placed by law under the general supervision of the Maryland Experiment Station. This service takes samples of seed offered for sale, and tests them for quality and germination. Mr. F. S. Holmes is in immediate charge of the seed work, with Dr. H. J. Patterson, Director of the Experiment Station.

ASSOCIATED STATE DEPARTMENTS

STATE DEPARTMENT OF FORESTRY

The Department of Forestry was created and organized to protect and develop the valuable timber and tree products of the State, to carry on a campaign of education, and to instruct counties, towns, corporations, and individuals as to the advantages and necessity of protecting from fire and other enemies the timber lands of the State. While the power of the Forestry Department rests with the Regents of the University, acting through the Advisory Board, the detail work is in the hands and under the management of the State Forester, who is secretary of the Board; and all correspondence and inquiries should be addressed to him at 1411 Fidelity Building, Baltimore.

Scientific Staff:

F. W. Besley, State Forester.....Baltimore
Karl E. Pfeiffer, Assistant State Forester.....Baltimore
Walter J. Quick, Jr., Assistant Forester.....Baltimore
Richard Kilbourne, Assistant Forester.....College Park

Studies have been made of the timber interests of each of the twenty-three counties; and the statistics and information collected are published for free distribution, accompanied by a valuable timber map. The Department also administers six state forests, comprising about 5,000 acres. The Roadside Tree Law directs the Department of Forestry to care for trees growing within the right-of-way of any public highway in the State. A State forest nursery, established in 1914 and located at College Park, is under the juridiction of this Department.

STATE WEATHER SERVICE

The State Weather Service compiles local statistics regarding climatic conditions and disseminates information regarding the climatology of Maryland under the Regents of the University of Maryland through the State Geologist as successor to the Maryland State Weather Service Commission. The State Geologist is ex-officio Director, performing all the functions of former officers with the exception of Meteorologist, who is commissioned by the Governor and serves as liaison officer with the United States Weather Bureau. All activities except clerical are performed voluntarily. The officers are:

Edward B. Mathews, Director.....Baltimore
John R. Weeks, Meteorologist, U. S. Custom House, Baltimore

THE STATE GEOLOGICAL AND ECONOMIC SURVEY

The Geological and Economic Survey Commission is authorized under the general jurisdiction of the Board of Regents of the University of Maryland

to conduct the work of this department. The State Geological and Economic Survey is authorized to make:

Topographic surveys showing the relief of the land, streams, roads, railways, houses, etc.

Geological surveys showing the distribution of the geological formations and mineral deposits of the State.

Agricultural soil surveys showing the areal extent and character of the different soils.

Hydrographic surveys to determine the available waters of the State for potable and industrial uses.

Magnetic surveys to determine the variation of the needle for land surveys.

A permanent exhibit of the mineral wealth of the State in the old Hall of Delegates at the State House, to which new materials are constantly added to keep the collection up-to-date.

The following is the staff of the Survey:

Edward B. Mathews, State Geologist	Baltimore
Edward W. Berry, Assistant State Geologist	Baltimore
Charles K. Swartz, Geologist	Baltimore
Joseph T. Singewald, Jr., Geologist	Baltimore
Myra Ale, Secretary	Baltimore
Grace E. Reed, Librarian	Baltimore
Eugene H. Sapp, Clerk	Baltimore

SECTION III
Description of Courses

The courses of instruction described in this section are offered at College Park. Those offered in the Baltimore Schools are described in the separate announcements issued by the several schools.

For the convenience of students in making out schedules of studies, the subjects in the following Description of Courses are arranged alphabetically:

Courses for undergraduates are designated by the numbers 1-99; courses for advanced undergraduates and graduates, 100-199; courses for graduates, 200-299.

The letter following the number of the course indicates the semester in which the course is offered: thus, 1 f is offered the first semester; 1 s, the second semester; 1 y, the year. A capital S after a course number indicates that the course is offered in the summer session only.

The number of hours' credit is shown by the arabic numeral in parentheses after the title of the course.

A separate schedule of courses is issued each semester, giving the hours, places of meeting, and other information required by the student in making out his program. Students will obtain these schedules when they register.

Students are advised to consult the statements of the colleges and schools in Section II when making out their programs of studies; also "Regulation of Studies," Section I.

AGRICULTURAL ECONOMICS

PROFESSOR DEVAULT; ASSISTANT PROFESSOR RUSSELL.

A. E. 1 f. *Agricultural Industry and Resources* (3)—Two lectures; one laboratory. Open to sophomores.

A descriptive course dealing with agriculture as an industry and its relation to climate, physiography, soils, population centers and movements, commercial development, transportation, etc.; the existing agricultural resources of the world and their potentialities, commercial importance, and geographical distribution; the chief sources of consumption; the leading trade routes and markets for agricultural products. The history of American agriculture is briefly reviewed. Emphasis is upon the chief crop and livestock products of the United States.

A. E. 2 f. *Agricultural Economics* (3)—Three lectures. Prerequisite, Econ. 5 f or s.

A general course in Agricultural Economics, with special reference to population trend, agricultural wealth, land tenure, farm labor, agricultural credit, the tariff, price movements, and marketing and co-operation.

A. E. 3 s. *Advertising Agricultural Products* (3)—Three lectures.

Methods of giving publicity to agricultural products held for sale, naming the farm, advertising mediums, trade marks and slogans, roadside markets, demand vs. competition, legal aspect of advertising, advertising costs and advertising campaigns. (Not given in 1933-1934.)

For Advanced Undergraduates and Graduates

A. E. 101 s. *Transportation of Farm Products* (3)—Two lectures; one laboratory.

A study of the development of transportation in the United States, the different agencies for transporting farm products, with special attention to such problems as tariffs, rate structure, and the development of fast freight lines, refrigerator service, truck transportation of agricultural products, etc. Not open to students who have taken or who are taking Econ. 112s. (Russell.)

A. E. 102 s. *Marketing of Farm Products* (3)—Three lectures. Prerequisite, Econ. 5 f or s.

A complete analysis of the present system of transporting, storing, and distributing farm products, and a basis for intelligent direction of effort in increasing the efficiency of marketing methods. (DeVault.)

A. E. 103 f. *Co-operation in Agriculture* (3)—Three lectures.

Historical and comparative development of farmers' co-operative organizations with some reference to former movements; reasons for failure and essentials to success; commodity developments; the Federal Farm Board; trend of present tendencies. (Russell.)

A. E. 104 s. *Agricultural Finance* (3)—Three lectures.

Agricultural Credit requirements; institutions financing agriculture; financing specific farm organizations and industries. *Taxation* of various farm properties; burden of taxation on different industries; methods of taxation; proposals for tax reform. *Farm insurance*—fire, crop, live stock, and life insurance, with especial reference to mutual development—how provided, benefits, and needed extension. (Russell.)

A. E. 105 s. *Food Products Inspection* (3)—Two lectures; one laboratory.

This course, arranged by the Department of Agricultural Economics in co-operation with the State Department of Markets and the United States Department of Agriculture, is designed to give students primary instruction in the grading, standardizing, and inspection of fruits and vegetables, dairy products, poultry products, and meats. Theoretical instruction covering the fundamental principles will be given in the form of lectures, while the demonstrational and practical work will be conducted through laboratories and field trips to Washington, D. C., and Baltimore. (Staff.)

A. E. 106 s. *Prices* (3)—Two lectures; one laboratory.

A general course in prices and price relationships, with emphasis on prices of agricultural products. (Russell.)

A. E. 109 y. *Research Problems* (1-3).

With the permission of the instructor, students will work on any research problems in agricultural economics which they may choose, or a special list of subjects will be made up from which the students may select their research problems. There will be occasional class meetings for the purpose of making reports on progress of work, methods of approach, etc. (DeVault.)

For Graduates

A. E. 201 y. *Special Problems in Agricultural Economics* (3).

An advanced course dealing more extensively with some of the economic problems affecting the farmer; such as land problems, agricultural finance, farm, wealth, agricultural prices, transportation, and special problems in marketing and co-operation. (DeVault.)

A. E. 202 y. *Seminar* (1-3).

This course will consist of special reports by students on current economic subjects, and a discussion and criticism of the same by the members of the class and the instructor. (DeVault.)

A. E. 203 y. *Research and Thesis* (8).

Students will be assigned research work in Agricultural Economics under the supervision of the instructor. The work will consist of original investigation in problems of Agricultural Economics, and the results will be presented in the form of a thesis. (DeVault.)

A. E. 205 f. *Advanced Agricultural Geography and Commerce* (2)—One double period a week.

Individual advanced study of agricultural geography. (Russell.)

A. E. 210 f or s. *Taxation in Relation to Agriculture* (3)—One lecture; two laboratory or practicum periods per week.

Principles and practices of taxation in their relation to agriculture, with special reference to the trends of expenditures and tax levies; taxation in relation to land utilization; taxation in relation to ability to pay and benefits received; methods of assessing property; the general property tax as a major source of revenue; the Federal and State income tax; the gasoline and motor vehicle license tax; the sales tax; the inheritance and gift tax; other sources of revenue; and possibilities of economy in the expenditure of tax revenues. (DeVault and Walker.)

AGRICULTURAL EDUCATION AND RURAL LIFE

PROFESSORS COTTERMAN, CARPENTER; MR. WORTHINGTON.

For Advanced Undergraduates and Graduates

AG. ED. 101 s. *Observation and the Analysis of Teaching for Agricultural Students* (3)—Two lectures; one laboratory. Prerequisite, Ed. 4f. Open to juniors and seniors; required of juniors in Agricultural Education.

This course deals with an analysis of pupil learning in class groups. It includes a study of pupil and teacher objectives; objectives in secondary education; objectives in vocational education; objectives in vocational agricultural education; individual differences; varying elements in class and classroom situations; lesson patterns; pupil activities and procedures in the class period; measuring results; steps in teaching procedure; types of lessons; classroom management; observation and critiques. (Cotterman.)

AG. ED. 102 f. *Project Estimating and Cost Accounting* (2)—Two lectures. Prerequisite, Ag. Ed. 101.

The development of project programs in terms of placement opportunities, project forecasting as a form of motivation; project estimating in terms of cost factors; systems of project cost accounting; practice in project accounting, problems in estimating; sources of standards which may be used as bases in estimating; and the relation of the whole to farm estimating and planning, as well as to other forms of course work in vocational agriculture. (Worthington.)

AG. ED. 103 f. *Teaching Secondary Vocational Agriculture* (3)—Three lectures. Prerequisites, Ag. Ed. 101, 102; A. H. 1, 2; D. H. 1; Poultry 1; Soils 1; Agron. 1, 2; Hort. 1, 11; F. Mech. 101, 104; A. E. 2, 102; F. M. 2.

Types of vocational schools and classes; activities of high school departments of vocational agriculture; the development of day class courses; methods, approaches, objectives, and goals in day class instruction; the administration of projects and other forms of directed and supervised practice in day classes; objectives, course content, and methods in evening and part-time classes; equipment; extra-curricular activities of vocational departments; advisory committees and departmental goals; cooperative relationships; departmental administrative programs; ways of measuring results; publicity; records and reports. (Cotterman.)

AG. ED. 104 s. *Departmental Organization and Administration* (2)—Two lectures. Prerequisites, Ag. Ed. 101, 102, 103.

The work of this course is based upon the construction and analysis of administrative programs for high school departments of vocational agriculture. As a project each student prepares and analyzes in detail an administrative program for a specific school. Investigations and reports. (Worthington.)

AG. ED. 105 f or s. *Practice Teaching* (2)—Prerequisites, Ag. Ed. 101, 102, 103.

Under the immediate direction of a critic teacher the student in this course is required to analyze and prepare special units of subject matter, plan lessons, and teach in cooperation with the critic teacher exclusive of observation not less than twenty periods of vocational agriculture. (Cotterman and Worthington).

AG. ED. 106 s. *Rural Life and Education* (3)—Three lectures.

Dynamics of life; changing rural communities; possibilities of normal life

in rural areas; ancient and foreign rural communities; evolution of American rural communities; the home, church, school, community, state, governmental and other volunteer organizations as a response to human aspiration and realization; the place of elementary, secondary, and higher education in rural life endeavors; educational objectives of fairs and similar agencies; tendencies in high grade rural living; the conditioning effect of economic differences; investigations and reports. This course is designed especially for persons who expect to be called upon to assist in shaping educational and other community programs for rural people. (Cotterman.)

AG. ED. 107 s. *Teaching Farm Shop in Secondary Schools* (1)—One lecture.

Objectives in the teaching of farm shop; contemporary developments; determination of projects; shop management; shop programs; methods of teaching; equipment; materials of instruction; special projects. (Carpenter.)

AG. ED. 108 y. *Farm Practicums and Demonstrations* (2)—One laboratory.

This course is designed to assist the student in relating the learning acquired in the several departments of the University with the problems of doing and demonstrating which he faces in the field and in the classroom as a teacher. It aims particularly to check his training in the essential practicums and demonstrations in vocational agriculture and to introduce him to the conditions under which such activities must be carried on in the patronage areas and laboratories of vocational departments. It treats of objectives, organization, equipment, and equipment construction. Laboratory practice in deficiencies required. Special assignments and reports. (Cotterman.)

*ED. 105 f. *Educational Sociology* (3).

For Graduates

AG. ED. 201 f. *Comparative Agricultural Education* (3)—Prerequisite, Ag. Ed. 101.

State systems of instruction in agriculture are examined and evaluated from the standpoint of objectives, the work of teachers, and results accomplished; special papers, investigations, and reports. (Cotterman.)

AG. ED. 202 s. *Supervision of Vocational Agriculture* (3)—Prerequisite, Ag. Ed. 101.

Analysis of the work of the supervisor; comparative studies of supervisory programs, policies, and problems; principles of supervision; investigations and reports. (Cotterman.)

AG. ED. 203 S. *School and Rural Community Studies* (2)—Summer Session only.

**See courses under Education.*

The function of school and rural community studies; typical studies, their purposes and findings; types of surveys; sources of information; planning and preparation of studies; collection, tabulation, and interpretation of data. Essentially a course for those specializing and preparing theses in Agricultural Education.

AG. ED. 204 s. *Seminar in Agricultural Education* (3).

Problems in the administration and organization of Agricultural Education—prevocational, secondary, collegiate, and extension; individual problems and papers; current literature. (Cotterman.)

AG. ED. 205 y. *Research and Thesis* (6-8).

Students are assigned research work in Agricultural Education under the supervision of the instructor. Work consists of investigation in Agricultural Education. Results are presented in the form of theses. (Cotterman.)

AG. ED. 206 S. *Education in Changing Rural Communities* (2)—Summer Session only.

New bases for community organization; changes in institutional set-ups; new agencies of education; trends in recent agrarian movements and aspirations; demands upon educational institutions; investigations and reports. (Cotterman.)

*ED. 202 s. *Higher Education in the United States* (3).

AGRONOMY

Division of Crops

PROFESSORS METZGER, KEMP; ASSOCIATE PROFESSOR EPPLEY.

AGRON. 1 f. *Cereal Crop Production* (3)—Two lectures; one laboratory.

History, distribution, adaptation, culture, improvement, and uses of cereal, forage, pasture, cover, and green manure crops.

AGRON. 2 s. *Forage Crop Production* (3)—Two lectures; one laboratory.

Continuation of Agron. 1 f.

For Advanced Undergraduates and Graduates

AGRON. 102 f. *Technology of Crop Marketing* (2 or 4)—Students, other than those specializing in Agronomy, may register for either half of the course. Part one (*Grading Farm Crops*)—one lecture; one laboratory. The market classifications and grades as recommended by the United States Bureau of Markets, and practice in determining grades. Part two (*Grain, Hay, and Seed Judging and Identification*)—one laboratory. One credit for special problems in production of a selected crop. (Eppley.)

**See courses under Education.*

AGRON. 103 f. *Crop Breeding* (2)—One lecture; one laboratory. Prerequisite, Gen. 101.

The principles of breeding as applied to field crops and methods used in crop improvement. (Kemp.)

AGRON. 121 s. *Methods of Crop and Soil Investigations* (2)—One lecture; one laboratory.

A consideration of crop investigation methods at the various experiment stations, and the standardization of such methods. (Metzger.)

For Graduates

AGRON. 201 y. *Crop Breeding* (4-10)—Credits determined by work accomplished.

The content of this course is similar to that of Agron. 103, but will be adapted more to graduate students, and more of a range will be allowed in choice of material to suit special cases. (Kemp.)

AGRON. 203 y. *Seminar* (2)—One report period each week.

The seminar is devoted largely to reports by students on current scientific publications dealing with problems in crops and soils.

AGRON. 209 y. *Research* (6-8)—Credit determined by work accomplished.

With the approval of the head of the department the student will be allowed to work on any problem in agronomy, or he will be given a list of suggested problems from which he may make a selection. (Staff.)

Division of Soils

PROFESSOR BRUCE, ASSOCIATE PROFESSOR THOMAS, LECTURER THOM.

SOILS 1 f and s. *Soils and Fertilizers* (3-5)—Three lectures; two two-hour laboratory periods. Prerequisites, Geol. 1 f, Chem. 1 y, Chem 13 s, or registration in Chem. 13 s.

A study of the principles involved in soil formation and classification. The influence of physical, chemical, and biological activities on plant growth, together with the use of fertilizers in the maintenance of soil fertility. Lectures may be taken without the laboratory.

For Advanced Undergraduates and Graduates.

SOILS 102 s. *Soil Management* (3)—Two lectures; one laboratory. Prerequisite, Soils 1.

A study of the soil fertility systems of the United States with special emphasis on the inter-relation of total to available plant food, the balance of nutrients in the soil with reference to various cropping systems, and the economic and national aspect of permanent soil improvement. The practical work includes laboratory and greenhouse practice in soil improvement.

SOILS 103 f. *Soil Geography* (3)—Two lectures; one discussion period.

A study of the geneology of soils, the principal soil regions of North America, and the classification of soils. Field trips will be made to emphasize certain important phases of the subject.

For Graduates

SOILS 204 s. *Soil Micro-Biology* (3)—Two lectures; one laboratory. Prerequisite, Bact. 1.

A study of the micro-organisms of the soil in relation to fertility. It includes the study of the bacteria of the soil concerned in the decomposition of organic matter, nitrogen fixation, nitrification, and sulphur oxidation and reduction, and deals also with such organisms as fungi, algae, and protozoa.

The course includes a critical study of the methods used by Experiment Stations in soil investigational work. (Thom.)

SOILS 201 y. *Special Problems and Research* (10-12).

Original investigation of problems in soils and fertilizers. (Staff.)

SOILS 202 y. *Soil Technology* (7-5 f, 2 s)—Three lectures; two laboratories first semester; two lectures second semester. Prerequisites, Geol. 1, Soils 1, and Chem. 1.

In the first semester chemical and physico-chemical study of soil problems as encountered in field, greenhouse, and laboratory. In the second semester physical and plant nutritional problems related to the soil. (Thomas.)

ANIMAL HUSBANDRY

PROFESSOR MEADE; ASSOCIATE PROFESSOR HUNT.

A. H. 1 f. *General Animal Husbandry* (3)—Two lectures; one laboratory.

Place of livestock in the farm organization. General principles underlying efficient livestock management. Brief survey of types, breeds, and market classes of livestock, together with an insight into our meat supply.

For Advanced Undergraduates and Graduates

A. H. 101 f. *Feeds and Feeding* (3)—Two lectures; one laboratory.

Elements of nutrition; source, characteristics, and adaptability of the various feeds to the several classes of livestock. Feeding standards, the calculation and compounding of rations. (Meade.)

A. H. 102 s. *Principles of Breeding* (3)—Two lectures; one laboratory.

This course covers the practical aspects of animal breeding, including heredity, variation, selection, development, systems of breeding, and pedigree work. (Meade.)

A. H. 103 f; 104 s. *Livestock Management* (5)—Four lectures; one laboratory.

First semester instruction given will relate to the care, feeding, breeding, and management of beef cattle and horses. Second semester, similar instruction will be given relative to swine and sheep. (Hunt.)

A. H. 105 f; 106 s. *Livestock Judging* (1)—One laboratory.

First semester—The comparative and competitive judging of beef cattle and horses. Second semester—The comparative and competitive judging of swine and sheep. Such judging teams as may be chosen to represent the University will be selected from among those taking this course. (Hunt.)

A. H. 107 f. *Marketing Livestock, Meat, and Wool* (3)—Three lectures.

Market requirements in relation to livestock production. Market classes and grades. Organization and operation of public livestock markets. Livestock marketing methods. Preparation of livestock for shipment, and care in transit. Marketing feeders, grade, and purebred breeding stock. (Hunt.)

A. H. 108 f; 109 s. *Meat and Meat Packing* (2)—Two laboratory periods.

The slaughtering of meat animals; the handling of meat, and the process involved in the preparation, curing and distribution of meat and its products. (Not given 1933-1934.) (Hunt.)

A. H. 110 s. *Nutrition* (3)—Two lectures; one laboratory.

A study of digestion, assimilation, metabolism, and protein and energy requirements. Methods of investigation and studies in the utilization of feed and nutrients. (Meade.)

For Graduates

A. H. 201 y. *Special Problems in Animal Husbandry* (4-6)

Problems which relate specifically to the character of work the student is pursuing will be assigned. Credit given will be in proportion to the amount and character of work completed. (Meade, Hunt.)

A. H. 202 y. *Seminar* (2)—One lecture.

Students are required to prepare papers based upon their research for presentation before and discussion by the class. (Staff.)

A. H. 203 y. *Research*—Credit to be determined by the amount and character of work done.

With the approval of the head of the department, students will be required to pursue original research in some phase of animal husbandry, carry the same to completion, and report the results in the form of a thesis. (Meade, Hunt.)

ASTRONOMY

PROFESSOR T. H. TALIAFERRO.

ASTR. 1 s. *Astronomy* (3)—Three lectures. Elective, but open only to juniors and seniors.

An elementary course in descriptive astronomy.

BACTERIOLOGY AND PATHOLOGY

PROFESSORS PICKENS, REED; ASSOCIATE PROFESSOR BLACK; MR. FABER; MR. BARTRAM; DR. JAMES, LECTURER IN BACTERIOLOGY.

BACT. 1 f or s. *General Bacteriology* (4)—Two lectures; two laboratories. Sophomore year.

A brief history of bacteriology; microscopy, bacteria and their relation to nature; morphology, classification; metabolism; bacterial enzymes; application to water, milk, foods, and soils; relation to the industries and to diseases; preparation of culture media; sterilization and disinfection; microscopic and macroscopic examination of bacteria; classification, composition, and uses of stains; isolation, cultivation, and identification of aerobic and anaerobic bacteria.

BACT. 1 A. f or s. *General Bacteriology* (2)—Two lectures. Sophomore year. Prerequisite, consent of instructor.

This course consists of the lectures only of Bact. 1.

BACT. 2 s. *Pathogenic Bacteriology* (4)—Two lectures; two laboratories. Sophomore year. Prerequisite, Bact. 1.

Principles of infection and immunity; characteristics of pathogenic microorganisms; isolation and identification of bacteria from pathogenic material; effects of pathogens and their products.

BACT. 2 A. s. *Pathogenic Bacteriology* (2)—Two lectures. Sophomore year. Prerequisite, Bact. 1 and consent of instructor.

This course consists of the lectures only of Bact. 2 s.

BACT. 3 s. *Household Bacteriology* (3)—One lecture; two laboratories. Junior year. Home Economics students only.

A brief history of bacteriology, laboratory technic; care, preservation, and contamination of foods. Personal, home, and community hygiene.

BACT. 4 s. *Sanitary Bacteriology* (1)—One lecture; Senior year. Engineering students only.

Application to water purification and sewage disposal.

For Advanced Undergraduates and Graduates

BACT. 101 f. *Dairy Bacteriology* (3)—One lecture; two laboratories. Junior year. Prerequisite, Bact. 1.

Bacteria in milk, sources and development; milk fermentation; sanitary production; care and sterilization of equipment; care and preservation of milk and cream; pasteurization. Public health requirements. Standard methods of milk analysis; practice in the bacteriological control of milk supplies; occasional inspection trips. (Black.)

BACT. 102 s. *Dairy Bacteriology (Continued)* (3)—One lecture; two laboratories. Junior year. Prerequisite, Bact. 101 f. or consent of instructor in charge.

Relation of bacteria, yeasts, and molds to ice cream, butter, cheese, and other dairy products; sources of contamination. Bacteriological analysis and control; occasional inspection trips. (Black.)

BACT. 103 f. *Hematology* (2)—Two laboratories. Junior year. Bact. 1, desirable.

Procuring blood; estimating the amount of hemoglobin; color index; examination of red cells and leucocytes in fresh and stained preparations; numerical count of erythrocytes and leucocytes; differential count of leucocytes; sources and development of the formed elements of blood; pathological forms and counts. (Reed.)

BACT. 104 f. *Serology* (4)—Two lectures; two laboratories. Junior year. Prerequisite, Bact. 2 s. or consent of instructor in charge.

The theory of agglutinin, precipitin, lysin and complement fixation reactions and their application in the identification of bacteria and diagnosis of disease; factors affecting reactions; principles of immunity and hypersensitiveness; preparation of necessary reagents; general immunologic technic. (Black.)

BACT. 106 f. *Comparative Anatomy and Physiology* (3)—Three lectures. Junior year.

Structure of the animal body; abnormal as contrasted with normal. The interrelationship between the various organs and parts as to structure and function. (Reed.)

BACT. 107 s. *Urinalysis* (2)—Two laboratories. Junior year. Bact. 1, desirable.

Physiologic, pathologic and diagnostic significance; use of clinical methods and interpretation of results. (Reed.)

BACT. 109 f. *Pathological Technic* (3)—One lecture; two laboratories. Junior year. Bact. 1, desirable.

Examination of fresh material; fixation; decalcification. Sectioning by free hand and freezing methods; celloidin and paraffin embedding and sectioning. General staining methods. (Reed.)

BACT. 110 s. *Pathological Technic (Continued)* (2-4)—Laboratory course. Junior year. Prerequisite, Bact. 109 f. or consent of instructor in charge.

Special methods in pathological investigations and laboratory procedures which may be applied to clinical diagnosis. (Reed.)

BACT. 112 s. *Sanitary Bacteriology* (3)—One lecture; two laboratories. Junior year. Prerequisite, Bact. 1.

Bacteriological and public health aspects of water supplies, water purification methods, swimming pool sanitation; sewage disposal, industrial wastes; disposal of garbage and other municipal refuse. Practice in standard methods for examination of water and sewage. Differentiation and significance of the coli aerogenes group; interpretation of bacteriological analyses. (Black.)

BACT. 120 s. *Animal Hygiene* (3)—Three lectures or demonstrations. Senior year.

Care and management of domestic animals, with special reference to maintenance of health and resistance to disease. Prevention and early recognition of disease; general hygiene; sanitation; first aid. (Reed.)

BACT. 121 f. *Bacteriological Problems* (3-5)—Laboratory. Senior year. Prerequisite, Bact. 1.

Subject matter suitable to the needs of the particular student or problems as an introduction to research will be arranged. The research is intended to develop the student's initiative. The problems are to be selected, outlined, and investigated in consultation with and under the supervision of a member of the faculty. Methods of research, library practice, and knowledge of current literature are essential parts of the course. (Black and Pickens.)

BACT. 122 s. *Bacteriological Problems (Continued)* (3-5)—Laboratory. Senior year. Prerequsite, Bact. 1. (Black and Pickens).

BACT. 123 f. *Thesis* (4)—Laboratory. Senior year. Prerequisites, Bact. 1, and at least one of the advanced courses. May be substituted for Bact. 121 f.

Investigation of given project, results of which are to be presented in the form of a thesis and submitted for credit towards graduation. (Pickens and Black.)

BACT. 124 s. *Thesis (Continued)* (4)—Senior year. Prerequisites, Bact. 1, and at least one of the advanced courses. May be substituted for Bact. 122 s. (Pickens and Black.)

BACT. 125 s. *Public Health* (1)—One lecture. Senior year. Prerequisite, Bact. 1.

A series of weekly lectures on Public Health and its Administration, by the experts of the Maryland State Board of Health. (Pickens, in charge.)

BACT. 130 f. *Seminar* (1)—Senior year. Prerequisites, Bact. 1, and at least one of the advanced courses.

Students will submit reports on current scientific literature or on individual problems in bacteriology, which will be discussed and criticised by members of the class and staff. (Pickens and staff.)

BACT. 131 s. *Seminar (Continued)* (1)—Senior year. Prerequisites, Bact. 1, and at least one of the advanced courses. (Pickens and staff.)

For Graduates

BACT. 201 f. *Research Bacteriology* (2-10)—Laboratory. Prerequisites, Bact. 1, and any other courses needed for the particular project.

Properly qualified students will be admitted upon approval of the department head, and with his approval the student may select the subject for

research. The investigation should be outlined in consultation with and pursued under supervision of a member of the faculty of the department. The results obtained by major students working towards an advanced degree are to be presented in the form of a thesis, a copy of which must be filed with the department. Credit will be determined by the amount and character of the work accomplished. (Pickens and Black.)

BACT. 202 s. *Research Bacteriology (Continued)* (2-10)—Laboratory. Prerequisites, Bact. 1, and any other courses needed for the particular project. (Pickens and Black.)

BACT. 203 f. *Research in Genital Diseases of Farm Animals* (2-6)—Prerequisite, degree in Veterinary Medicine from an approved Veterinary college. Laboratory and field work by assignment. (Reed.)

BACT. 204 s. *Research in Genital Diseases of Farm Animals (Continued)* (2-6)—Prerequisite, degree in Veterinary Medicine from an approved Veterinary college. (Reed.)

*BACT. 205 f. *Advanced Food Bacteriology* (3)—Two lectures; one laboratory. Prerequisite, Bact., 10 hours.

Critical review of microorganisms necessary or beneficial to food products. Food spoilage; theories and advanced methods in food preservation. Application of bacteriological control methods to manufacturing operations. (James.)

*BACT. 206 s. *Physiology of Bacteria* (3)—Two lectures; one laboratory. Prerequisites, Bact., 10 hours and Chem. 108 or equivalent.

Chemical composition of bacteria; life cycles; influence of environmental conditions on growth and metabolism; bacterial enzymes; fermentations; protein decomposition; disinfection; bacterial variation; changes occurring in media. (James.)

BACT. 207 f. *Special Topics* (1)—Prerequisite, Bact., 10 hours.
Presentation and discussion of fundamental problems and special subjects. (Black.)

BACT. 208 s. *Special Topics (Continued)* (1)—Prerquisite, Bact., 10 hours. (Black.)

BOTANY

PROFESSORS APPLEMAN, NORTON, TEMPLE;
ASSOCIATE PROFESSOR BAMFORD; ASSISTANT PROFESSOR GREATHOUSE;
MR. PARKER, MISS SIMONDS, MR. FISHER, MR. BROWN, MR. PARKS,
MR. WOODS, MR. KING, MR. STUART.

A. General Botany and Morphology

BOT. 1 f or s. *General Botany* (4)—Two Lectures; two laboratories.

Ten students are required for each of these courses. A special fee is charged for them.

General introduction to botany, touching briefly on all phases of the subject. The chief aim in this course is to present fundamental biological principles rather than to lay the foundation for professional botany. The student is also acquainted with the true nature and aim of botanical science, its methods and the value of its results. (Bamford and Assistants.)

BOT. 2 s. *General Botany* (4)—Two lectures; two laboratories. Prerequisite, Bot. 1.

A study of algae, bacteria, fungi, liverworts, mosses, ferns, and seed plants. The development of reproduction, adjustment of plants to land habit of growth, and the attendant changes in vascular and anatomical structures are stressed. Several field trips will be arranged. With Bot. 1, a cultural course intended also as foundational to a career in the plant sciences. (Bamford.)

BOT. 3 s. *Local Flora.* (2)—Two laboratories. A study of common plants, both wild and cultivated, and the use of keys and floral manuals in identifying them. Largely field work. (Norton.)

For Advanced Undergraduates and Graduates

BOT. 101 f. *Plant Anatomy* (3)—One lecture; two laboratories. Prerequisite, Bot. 1.

The origin and development of the organs and tissue systems in the vascular plants, with special emphasis on the structures of roots, stems, and leaves. Reports of current literature are required. (Bamford.)

BOT. 102 f. *Mycology* (4)—Two lectures; two laboratories.

An introductory study of the morphology, life histories, classification, and economics of the fungi. Methods of cultivating fungi and identification of plant pathogens constitute a part of the laboratory work.
(Norton, Miss Simonds.)

BOT. 103 f or s. *Plant Taxonomy* (3)—One lecture; two laboratories.

Classification of the vegetable kingdom, and the principles underlying it; the use of other sciences and all phases of botany as taxonomic foundations; methods of taxonomic research in field, garden, herbarium, and library. Each student to work on a special problem during some of the laboratory time. (Not offered in 1934-1935.) (Norton.)

BOT. 105 s. *Economic Plants* (2)—One lecture; one laboratory.

The names, taxonomic position, native and commercial geographic distribution, and use of the leading economic plants of the world are studied. By examination of plant products in markets, stores, factories, and gardens, students become familiar with the useful plants both in the natural form and as used by man. (Not offered in 1933-1934.) (Norton.)

BOT. 106 f. *History and Philosophy of Botany* (1)—One lecture. Discussion of the development of the ideas and knowledge about plants, also a survey of contemporary workers in botanical science. (Norton.)

For Graduates

BOT. 201 s. *Histology and Cytology* (3)—One lecture; two laboratories. Prerequisite, Bot. 1.

A study of the technic involved in the preparation of permanent microscopic slides of plant materials. A detailed study of cell contents and cell reproduction, and the methods of illustrating them. The bearing of cytology upon theories of heredity and evolution will be emphasized. (Bamford.)

BOT. 202 s. *Industrial Mycology* (3 or more)—One lecture and two or more laboratories. Fungi in relation to canning, dairying, and other manufacturing processes; fermentation, sanitation, home economics, wood preservation, toxicology, soils, insect control, and other economic fields outside plant pathology. Part of the laboratory time to be spent in factories and technical laboratories. (Not offered in 1933-1934.) (Norton.)

BOT. 203 f and s. *Seminar* (1).

The study of special topics in plant morphology. (Bamford.)

BOT. 204. *Research*—Credit according to work done. (Norton, Bamford.)

B. Plant Pathology

PLT. PATH. 1 f. *Diseases of Plants* (4)—Two lectures; two laboratories. Prerequisite, Bot. 1.

An introductory study in the field, in the laboratory, and in the literature, of symptoms, causal organisms and control measures of the diseases of vegetables, field crops, fruits, and ornamental plants. Some option is given in the selection of laboratory materials for detailed study, so that the student may become familiar with the important diseases of the plants in his chosen field. (Temple.)

For Advanced Undergraduates and Graduates

PLT. PATH. 101 s. *Advanced Plant Pathology* (4)—Two lectures; two laboratories. Admission only after consultation with the instructor.

This course covers the nature, cause, and control of plant diseases in a much more thorough manner than is possible in the elementary course, and in addition it includes sufficient practice in technic to give the background for research. (Temple.)

PLT. PATH. 104 f and s. *Minor Investigations*—Credit according to work done. A laboratory course with an occasional conference. Prerequisite, Plt. Path. 1 f.

In this course the student may enter or withdraw at any time, including the summer months, and receive credit for the work accomplished. The course is intended primarily to give practice in technic so that the student may acquire sufficient skill to undertake fundamental research. Only minor problems or special phases of major problems may be undertaken.

Their solution may include a survey of the literature on the problem under investigation and both laboratory and field work. (Temple and Norton.)

For Graduates

PLT. PATH. 201 f. *Virus Diseases* (2)—Two lectures.

An advanced course dealing with the mosaic and similar or related diseases of plants, including a study of the current literature on the subject and the working of a problem in the greenhouse. (Not offered in 1933-1934.) (Temple.)

PLT. PATH. 203 f. *Non-Parasitic Diseases* (3)—Two lectures; one laboratory.

Effects of maladjustment of plants to their environment; injuries due to climate, soil, gases, dusts and sprays, fertilizers; improper treatment and other detrimental conditions. (Not offered in 1934-1935.) (Norton.)

PLT. PATH. 204 f and s. *Seminar* (1 or 2).

Conferences and reports on plant pathological literature and on recent investigations. (Temple.)

PLT. PATH. 205 y. *Research*—Credit according to work done. (Norton, Temple.)

C. Plant Physiology

PLT. PHYS. 1 f. *Elementary Plant Physiology* (4)—Two lectures; two laboratories. Prerequisite, Bot. 1 f or s.

A summary view of the general physiological activities of plants. The aim in this course is to stress principles rather than factual details. (Greathouse.)

For Advanced Undergraduates and Graduates

PLT. PHYS 101 s. *Plant Ecology* (3)—Two lectures; one laboratory. Prerequisite, Bot. 1 f or s.

The study of plants in relation to their environments. Plant formations and successions in various parts of the country are briefly treated. Much of the work, especially the practical, must be carried on in the field, and for this purpose type regions adjacent to the University are selected. (Fisher.)

For Graduates

PLT. PHYS 201 s. *Plant Biochemistry* (4)—Two lectures; two laboratories. Prerequisites, an elementary knowledge of plant physiology and organic chemistry.

An advanced course on the chemistry of plant life. It deals with materials and processes characteristic of plant life. Primary syntheses and the transformations of materials in plants and plant organs are especially emphasized. (Appleman, Parker.)

PLT. PHYS. 202 f. *Plant Biophysics* (4)—Two lectures; two laboratories. Prerequisites, Bot. 1 f or Bot. 1 s and Plt. Phys. 1 f or equivalent. An

elementary knowledge of physics or physical chemistry is highly desirable.

An advanced course dealing with the operation of physical forces in life processes and physical methods of research in plant physiology. Practice in recording meterological data constitutes a part of the course.

(Greathouse.)

PLT. PHYS. 203 s. *Plant Microchemistry* (2)—One lecture; one laboratory. Prerequisites, Bot. 1 f or s, Chem. 1 y, or equivalents.

The isolation, identification, and localization of organic and inorganic substances found in plant tissues by micro-technical methods. The use of these methods in the study of metabolism in plants is emphasized.

(Parker.)

PLT. PHYS. 204 s. *Growth and Development* (2)—(Not offered in 1933-1934.) (Appleman.)

PLT. PHYS. 205 f and s. *Seminar* (1).

The students are required to prepare reports of papers in the current literature. These are discussed in connection with the recent advances in the subject. (Appleman.)

PLT. PHYS. 206 y. *Research*—Credit hours according to work done.

Students must be specially qualified by previous work to pursue with profit the research to be undertaken. (Appleman, Greathouse, Parker.)

CHEMISTRY

PROFESSORS BROUGHTON, DRAKE, HARING, MCDONNELL;
ASSOCIATE PROFESSORS WHITE, WILEY;
ASSISTANT PROFESSOR MACHWART;
MR. WEILAND, DR. COOKE, MR. CAMPBELL, MR. HASKINS, MR. SMITH, MR. ROSE, MR. WHITE, MR. HATFIELD, MR. BOWERS, MR. SHRADER, MR. JACOBSEN, MR. VEITCH, MR. HENDRICKS, MR. DUVALL.

A. General Chemistry

CHEM. 1 A y. *General Chemistry* (8)—Two lectures; two laboratories.

A study of the non-metals and metals. One of the main purposes of the course is to develop original work, clear thinking, and keen observation.

Course A is intended for students who have never studied chemistry, or have passed their high school chemistry with a grade of less than B.

CHEM. 1 B y. *General Chemistry* (8)—Two lectures; two laboratories.

This course covers much the same ground as Chem. 1 A y, but the subject matter is taken up in more detail, with emphasis on chemical theory and important generalization. The laboratory work deals with fundamental principles, the preparation and purification of compounds, and a systematic qualitative analysis of the more common metals and acid radicals.

Course B is intended for students who have passed an approved high school chemistry course with a grade of not less than B.

CHEM. 2 y. *Qualitative Analysis* (6)—Two lectures; one laboratory the first semester, and one lecture; two laboratories the second semester. Prerequisite, Chem. 1 y.

A study of the reactions of the common metals and the acid radicals, their separation and identification, and the general underlying principles.

For Advanced Undergraduates and Graduates

CHEM. 100 s. *Special Topics for Teachers of Elementary Chemistry* (2)—Two lectures. Prerequisite, Chem. 1 y or equivalent.

A study of the content and the method of presentation of a high school chemistry course. It is designed chiefly to give a more complete understanding of the subject matter than is usually contained in an elementary course. Some of the recent advances in inorganic chemistry will be discussed. (Not given in 1933-1934.) (White.)

CHEM. 104 f. *Advanced Inorganic Chemistry* (4)—Two lectures; two laboratories. Prerequisite, Chem. 2 y. Lectures may be taken without laboratory.

This course is an advanced study of the general principles of inorganic chemistry. Special emphasis is given to the reactions and the more unusual properties of the common elements. Laboratory experiments are selected which involve important theoretical considerations. (White.)

For Graduates

CHEM. 200 s. *Chemistry of the Rarer Elements* (5)—Three lectures; two laboratories. Prerequisite, Chem. 2 y. Lectures may be taken without laboratory.

The course is devoted to a study of the rarer elements and their compounds. The laboratory work involves the extraction of these elements from their ores and the preparation of their compounds. (White.)

CHEM. 201 f and s. *Research in Inorganic Chemistry*—Open to students working for the higher degrees. Prerequisite, a bachelor's degree in chemistry or its equivalent. (White.)

B. Analytical Chemistry

CHEM. 4 f or s. *Quantitative Analysis* (4)—Two lectures; two laboratories. Prerequisite, Chem. 1 y.

Quantitative analysis for pre-medical students with special reference to volumetric methods.

CHEM. 5 y. *Determinative Mineralogy and Assaying* (4)—One lecture; one laboratory. Prerequisite, Chem. 1 y.

The more important minerals are identified by their characteristic phys-

ical and chemical properties. Assays of gold, silver, copper, and lead are made.

CHEM. 6 y. *Quantitative Analysis* (8)—Two lectures; two laboratories. Prerequisite, Chem. 2 y.

The principal operations of gravimetric analysis. Standardization of weights and apparatus used in chemical analysis. The principal operations of volumetric analysis. Study of indicators, typical volumetric and colorimetric methods. The calculations of volumetric and gravimetric analysis are emphasized, as well as calculations relating to common ion effect. Required of all students whose major is chemistry.

For Advanced Undergraduates and Graduates

CHEM. 101 y. *Advanced Quantitative Analysis* (10)—Two lectures; three laboratories. Prerequisite, Chem. 6 y or its equivalent.

A broad survey of the field of inorganic quantitative analysis. In the first semester mineral analysis will be given. Included in this will be analysis of silicates, carbonates, etc. In the second semester the analysis of steel and iron will be taken up. However, the student will be given wide latitude as to the type of quantitative analysis he wishes to pursue during the second semester. (Wiley.)

CHEM. 103 y. *Advanced Industrial Analysis* (10)—Two lectures; three laboratories.

This course includes the analysis of alloys of industrial application. The interpretation of chemical analysis and correlation of chemical composition and physical properties. A limited amount of work will be done with the microscope. (Wiley.)

For Graduates

CHEM. 202 f or s. *Research in Quantitative Analysis*—Open to students working for the higher degrees. Prerequisite, a bachelor's degree in chemistry or its equivalent. (Wiley.)

C. Organic Chemistry

CHEM. 8 A y. *Elementary Organic Chemistry* (4)—Two lectures. Prerequisite, Chem. 1 y.

This course includes an elementary study of the fundamentals of organic chemistry, and is designed to meet the needs of students specializing in chemistry, and pre-medical students.

CHEM. 8 B y. *Elementary Organic Laboratory* (2)—Two laboratories.

A course designated to familiarize the student with the fundamental methods of the organic laboratory. This course with Chem. 8 A y will satisfy the pre-medical requirements in organic chemistry.

For Advanced Undergraduates and Graduates

CHEM. 116 y. *Advanced Organic Chemistry* (4)—Two lectures. Prerequisite, Chem. 8 A y and 8 B y or their equivalent.

This course is devoted to a more advanced study of the compounds of carbon than is undertaken in Chem. 8 A y. Graduate students who desire an accompanying laboratory course should elect Chem. 210 y. Juniors taking Chem. 116 y are expected to accompany it with Chem. 117 y and to elect Chem. 118 y in their senior year. (Drake.)

CHEM. 117 y. *Organic Laboratory* (2)—Two laboratories.

This course is devoted to an elementary study of organic qualitative analysis. The work includes the identification of unknown organic compounds, and corresponds to the more extended course, Chem. 207. (Drake.)

CHEM. 118 y. *Advanced Organic Laboratory* (2)—Two laboratories.

A study of organic quantitative analysis and the preparation of organic compounds. Quantitative determinations of carbon and hydrogen, nitrogen, and halogen are carried out, and syntheses more difficult than those of Chem. 8 B y are studied. (Drake.)

For Graduates

CHEM. 203 f or s. *Special Topics in Organic Chemistry* (2).

A lecture course which will be given any half-year when there is sufficient demand.

The course will be devoted to an advanced study of topics which are too specialized to be considered in Chem. 116 y. Topics that may be covered are dyes, drugs, carbohydrates, plant pigments, etc. The subject matter will be varied to suit best the needs of the particular group enrolled. (Drake.)

CHEM. 204 f or s. *Special Topics in Organic Chemistry* (2)—This course is similar in its scope to Chem. 203.

The topics discussed will be varied from year to year, and will include recent important advances in such fields as terpene chemistry, and the chemistry of other important natural products. The treatment of the subject will be primarily chemical, and the physiological, or biochemical significance and action of the various compounds discussed will not be stressed. (Drake.)

CHEM. 205 f or s. *Organic Preparations* (4)—A laboratory course, devoted to the synthesis of various organic compounds.

This course is designed to fit the needs of students whose laboratory experience has been insufficient for research in organic chemistry. (Drake.)

CHEM. 206 f or s. *Organic Microanalysis* (4).

A laboratory study of the methods of Pregl for the quantitative deter-

mination of halogen, nitrogen, carbon, hydrogen, methoxyl, etc., in very small quantities of material.

This course is open only to properly qualified graduate students, and the consent of the instructor is necessary before enrollment. (Drake.)

CHEM. 207 f or s. *Organic Qualitative Analysis* (variable credit to suit student, with a minimum of 2 and a maximum of 6 credits possible).

Laboratory work devoted to the identification of pure organic substances and of mixtures. The text used is Kamm's "Qualitative Organic Analysis."

This course should be taken by students who intend to major in organic chemistry for a higher degree. The work is an excellent preparation for the problems of identification likely to be encountered while conducting research. (Drake.)

CHEM. 210 y. *Advanced Organic Laboratory* (4 or 6).

Students electing this course should elect Chem. 116 y. The content of the course is essentially that of Chem. 117 y and 118 y, but may be varied within wide limits to fit the needs of the individual student. (Drake.)

CHEM. 211 f or s. *Research in Organic Chemistry*—Open to students working for the higher degrees. Prerequisite, a bachelor's degree in chemistry or its equivalent. (Drake.)

CHEM. 226 y. *Advanced Organic Chemistry* (4)—Two lectures. Prerequisite, Chem. 8 y or its equivalent.

A course designed to meet the needs of students not specializing in chemistry who desire a more advanced course than Chem. 8 y. For a part of the year, one lecture a week will be devoted to reports and discussion of assigned collateral reading. Consent of the instructor is necessary before enrollment in this course. (Drake.)

D. Physical Chemistry

CHEM. 10 y. *Elementary Physical Chemistry* (6)—Two lectures; one laboratory. Prerequisites, Chem. 1 y; Physics 1 y; Math. 5 y.

This course, designed particularly for those unable to pursue the subject further, reviews the more theoretical points of inorganic chemistry from an advanced standpoint and lays a good foundation for more advanced work in physical chemistry.

For Advanced Undergraduates and Graduates

CHEM. 102 y. *Physical Chemistry* (10)—Three lectures; two laboratory periods. Prerequisites, Chem. 6 y; Physics 2 y; Math. 5 y.

One term may be taken for graduate credit with or without laboratory work. Graduate students may take lectures (6 credits) only in this course and elect also Chem. 219 f and s. With the consent of the instructor, graduate students may enter in the second semester.

This course aims to furnish the student with a thorough background in the laws and theories of chemistry. (The gas laws, kinetic theory, liquids, solutions, elementary thermodynamics, thermochemistry, equilibrium, chemical kinetics, etc., will be discussed.) (Haring.)

For Graduates

Note: CHEM. 102 y. or its equivalent is prerequisite for all advanced courses in physical chemistry.

CHEM. 212 f or s. *Colloid Chemistry* (8) or (4)—Two lectures; two laboratory periods; or two lectures only.

This is a thorough course in the chemistry of matter associated with surface energy. First semester, theory; second semester, practical applications. (Haring.)

CHEM. 213 f. *Phase Rule* (2)—Two lectures.

A systematic study of heterogeneous equilibria. One, two, and three component systems will be considered, with practical applications of each. (Not given in 1933-1934.) (Haring.)

CHEM 214 s. *Structure of Matter* (2)—Two lectures.

Subjects considered will be radioactivity, isotopes, the Bohr and Lewis-Langmuir theories of atomic structure, and allied topics. (Not given in 1933-1934.) (Haring.)

CHEM. 215 f. *Catalysis* (2)—Two lectures.

This course consists of lectures on the theory and applications of catalysis. (Not given in 1933-1934.) (Haring.)

CHEM. 216 s. *Theory of Solution* (2)—Two lectures.

A detailed study will be made of the modern theory of ideal solutions, of the theory of electrolytic dissociation and of the recent developments of the latter. (Not given in 1933-1934.) (Haring.)

CHEM. 217 f or s. *Electrochemistry* (8) or (4)—Two lectures; two laboratory periods; or two lectures only.

A study of the principles and some of the practical applications of electrochemistry. First semester, theory; second semester, practical applications. (Not given in 1933-1934.) (Haring.)

CHEM. 218 y. *Chemical Thermodynamics* (4)—Two lectures.

A study of the methods of approaching chemical problems through the laws of energy. (Haring.)

CHEM. 219 f or s. *Physical Chemistry Laboratory* (4 or 6)—Two laboratory periods and one conference. Students taking this course may elect 6 credits of lectures in Chem. 102 y. (Haring.)

CHEM. 220 f or s. *Research in Physical Chemistry*—Open to students working for the higher degrees. Prerequisites, a bachelor's degree in chemistry or its equivalent, and consent of the instructor. (Haring.)

E. Agricultural Chemistry

CHEM. 12 f. *Elements of Organic Chemistry* (5)—Three lectures; two laboratories. Prerequisite, Chem. 1 y.

The chemistry of carbon and its compounds. This course is particularly designed for students in Agriculture and Home Economics. The lectures can be taken without the laboratory.

CHEM. 13 s. *Agricultural Chemical Analysis* (3)—One lecture; two laboratories. Prerequisite, Chem. 1 y.

An introductory course in the analysis of agricultural products with special reference to the analysis of feeding stuffs, soils, fertilizers, and insecticides.

CHEM. 14 s. *Chemistry of Textiles* (4)—Two lectures; two laboratories. Prerequisite, Chem. 12 f.

A study of the principal textile fibres, their chemical and mechanical structure. Chemical methods are given for identifying the various fibres and for a study of dyes and mordants.

For Advanced Undergraduates and Graduates

CHEM. 106 f or s. *Dairy Chemistry* (4)—One lecture; three laboratories. Prerequisite, Chem. 12 f.

Lectures and assigned reading on the constituents of dairy products. This course is designed to give the student a working knowledge and laboratory practice in dairy chemistry and analysis. Practice is given in examining dairy products for confirmation under the food laws, detection of watering, detection of preservatives and added colors, and the detection of adulterants. Students showing sufficient progress may take the second semester's work, and elect to isolate and make complete analysis of the fat or protein of milk. (McDonnell.)

CHEM. 108 s. *General Physiological Chemistry* (4)—Two lectures; two laboratories. Prerequisite, Chem. 12 f or its equivalent.

Biological chemistry in its relation to foods, digestion, and metabolism, including laboratory examination and determination of compounds of biological interest. (Broughton.)

CHEM. 115 f or s. *Organic Analysis* (4)—One lecture; three laboratories. Prerequisites, Chem. 12 f and 13 s.

This course gives a connected introductory training in organic analysis, especially as applied to plant and animal substances and their manufactured products. The greater part of the course is devoted to quantitative methods for food materials and related substances. Standard works and the publications of the Association of the Official Agricultural Chemists are used freely as references. (Broughton.)

For Graduates

CHEM. 221 f or s. *Tissue Analysis* (3)—Three laboratories. Prerequisite, Chem. 12 f or its equivalent.

A discussion and the application of the analytical methods used in determining the inorganic and organic constituents of plant and animal tissue. (Broughton.)

CHEM. 223 f. *Physiological Chemistry* (5)—Three lectures; two laboratories. Prerequisite, Chem. 12 f or its equivalent.

Lectures and laboratories on the study of the constitution and reactions of proteins, fats, carbohydrates, and allied compounds of biological importance. (Broughton.)

CHEM. 224 f or s. *Special Problems* (4 to 8)—A total of eight credit hours may be obtained in this course by continuing the course for two semesters. Laboratory, library, and conference work amounting to a minimum of ten hours each week. Prerequisites, Chem. 223 f and consent of instructor.

This course consists of studies of special methods, such as the separation of the fatty acids from a selected fat, the preparation of certain carbohydrates or amino acids, and the determination of the distribution of nitrogen in a protein. The students will choose, with the advice of the instructor, the particular problem to be studied. (Broughton.)

CHEM. 227 f or s. *Research*—Agricultural chemical problems will be assigned to graduate students who wish to gain an advanced degree. (Broughton.)

F. Industrial Chemistry

For Advanced Undergraduates and Graduates

CHEM. 110 y. *Industrial Chemistry* (6)—Three lectures. Prerequisites, Chem. 6 y and 8 y.

A study of the principal chemical industries; plant inspection, trips, and reports; the preparation of a report on some chemical industry. (Machwart.)

CHEM. 111 f. *Engineering Chemistry* (2 or 3)—Two lectures; one laboratory.

A study of the chemistry of engineering materials. (Machwart.)

CHEM. 113 y. *Industrial Laboratory* (4)—Two laboratories. Prerequisite, consent of instructor.

Experiments typical of industrial operations. Examination of materials. (Machwart.)

CHEM. 114 y. *Industrial Calculations* (4)—Two lectures.

A study of industrial problems from the physical chemistry viewpoint. Problems typical of industry. (Machwart.)

For Graduates

CHEM. 222 y. *Unit Operations* (6)—Three lectures. Prerequisite, consent of instructor.

A theoretical discussion of evaporation, distillation, filtration, etc. Problems. (Machwart.)

CHEM. 225 s. *Gas Analysis* (3)—One lecture; two laboratories. Prerequisite, consent of instructor.

Quantitative determination of common gases. Flue gas and water gas analysis, including calorific determinations of the latter. Problems. (Not given in 1933-1934.) (Machwart.)

CHEM. 288 f and s. *Research in Industrial Chemistry*—The investigation of special problems and the preparation of a thesis towards an advanced degree. (Machwart.)

G. Chemical Seminar

CHEM. 229 f or s. *Seminar* (2)—Required of all graduate students in chemistry. The students are required to prepare reports of papers in the current literature. These are discussed in connection with the recent advances in the subject. (The Chemistry Staff.)

DAIRY HUSBANDARY

PROFESSOR MEADE; ASSOCIATE PROFESSOR INGHAM.

D. H. 1 s. *Farm Dairying* (3)—Two lectures; one laboratory.

Types and breeds of dairy cattle, the production and handling of milk on the farm, use of the Babcock Test, starters, cottage cheese, and farm buttermaking.

For Advanced Undergraduates and Graduates

D. H. 101 f. *Dairy Production* (3)—Two lectures; one laboratory.

Breeds of dairy cattle, their characteristics and adaptability. Methods of herd management, feeding and breeding operations, dairy herd improvement, and other factors concerned in the efficient and economical production of milk. Advanced registry requirements and dairy cattle judging. (Ingham.)

D. H. 102 s. *Advanced Dairy Cattle Judging* (1)—One laboratory.

Comparative judging of dairy cattle. Trips to various leading dairy farms will be made. Such dairy cattle judging teams as may be chosen to represent the university will be selected from among those taking this course. (Ingham.)

D. H. 103 f and 104 s. *Dairy Manufacturing* (3)—One lecture; two laboratories.

Manufacture of butter, cheese, and ice cream, and the preparation of culture buttermilk. Study of cream separation, pasteurization, and processing of milk and cream. Refrigeration. The second semester work will

be devoted largely to the study of ice cream, and must be preceded by the work of the first semester.

D. H. 105 f. *Market Milk* (4)—Three lectures; one laboratory.

This course is so planned as to cover the commercial and economic phases of market milk, relating more particularly to cost of production and distribution, processing, milk plant construction and operation, sanitation, and merchandising. Dairy farms and commercial dairy plants will be visited and their plans of construction, arrangement of equipment, and method of operation carefully studied. (Not given in 1933-1934.)

D. H. 106 s. *Marketing and Grading of Dairy Products* (2)—One lecture; one laboratory.

Dairy marketing from the standpoint respectively of producer, dealer, and consumer; market grades and the judging of dairy products.

D. H. 107 s. *Dairy Plant Technic* (2)—One lecture; one laboratory.

Prerequisites, D. H. 101 f; Bact. 102 s; Chem. 106 f or s.

This course is designed to give students practice in the application of commercial dairy laboratory tests, and familiarize them with the economic value of such technical tests as relate to the dairy industry.

D. H. 108 s. *Advanced Breed Study* (2)—One lecture; one laboratory.

Breed Association rules and regulations, important families and individuals, pedigree studies. Work largely by assignment. (Ingham.)

D. H. 109 s. *Advanced Dairy Manufacturing* (3)—Hours to be arranged as to lecture and laboratory. Prerequisite, D. H. 103 f and 104 s.

The work done in this course is varied to meet the needs of the individuals composing the class, and relates especially to advanced and technical problems in dairy manufacturing and plant management.

For Graduates

D. H. 201 y. Special Problems in Dairying (4-6).

Special problems which relate specifically to the work the student is pursuing will be assigned. Credit will be given in accordance with the amount and character of work done. (Meade.)

D. H. 202 y. *Seminar* (2).

Students are required to prepare papers based upon current scientific publications relating to dairying or upon their research work for presentation before and discussion by the class. (Staff.)

D. H. 203 y. *Research*—Credit to be determined by the amount and quality of work done.

The student will be required to pursue, with the approval of the head of the department, an original investigation in some phase of dairy husbandry, carry the same to completion, and report results in the form of a thesis. (Meade, Ingham.)

ECONOMICS AND SOCIOLOGY

PROFESSOR BROWN; ASSISTANT PROFESSORS JOHNSON, WEDEBERG, DANIELS; MR. BELLMAN, MR. CISSEL.

A. Economics

SOC. SCI. 1 y. *Introduction to the Social Sciences* (6)—One lecture; two discussions. Open to freshmen and sophomores only.

This course serves as an orientation to advanced work in the social sciences. In the first semester the basis, nature, and evolution of society and social institutions are studied. During the second semester major problems of modern citizenship are analysed in terms of knowledge contributed by economics, history, political science, and sociology.

ECON. 1 f. *Economic Geography and Industry* (3)—Three lectures.

A study of the economic and political factors which are responsible for the location of industries, and which influence the production, distribution, and exchange of commodities throughout the world.

ECON. 2 s. *History of World Commerce* (3)—Three lectures.

Commercial development throughout the three major periods of history; viz., Ancient, Medieval, and Modern. Special emphasis is laid upon important changes brought about by the World War.

ECON. 3 y. *Principles of Economics* (6)—Three lectures. Prerequisite, sophomore standing.

A study of the general principles of economics—production, exchange, distribution, and consumption of wealth. The study is based upon a recent text, lectures, collateral readings, and student exercises.

ECON. 5 f or s. *Fundamentals of Economics* (3)—Three lectures. Required of students in the Colleges of Engineering and Agriculture.

A study of the general principles underlying economic activity. Not open to students having credit in Econ. 3 y.

ECON. 7 f. *Business Organization and Operation* (3)—Three lectures.

A study of the growth of large business organizations. Types of organizations are studied from the viewpoints of legal status, relative efficiency, and social effects.

For Advanced Undergraduates and Graduates

ECON. 101 f. *Money and Credit* (2)—Two lectures. Prerequisite, Econ. 3 y or consent of the instructor.

A study of the origin, nature, and functions of money, monetary systems, credit and credit instruments, prices, interest rates, and exchanges. (Brown.)

ECON. 102 s. *Banking* (2)—Two lectures. Prerequisite, Econ. 101 f.

Principles and practice of banking in relation to business. Special emphasis upon the Federal Reserve System. (Brown.)

ECON. 103 f. *Corporation Finance* (2)—Two lectures. Prerequisite, Econ. 3 y.

Principles of financing, the corporation and its status before the law, basis of capitalization, sources of capital funds, sinking funds, distribution of surplus, causes of failures, reorganizations, and receiverships. (Brown.)

ECON. 104 s. *Investments* (3)—Three lectures. Prerequisite, Econ. 3 y and senior standing.

Principles of investment, analyzing reports, price determination, taxation of securities, corporation bonds, civil obligations, real estate securities, and miscellaneous investments. Lectures, library assignments, and chart studies. (Brown.)

ECON. 105 f. *Insurance* (2)—Two lectures. Prerequisite, Econ. 3 y.

A survey of the major principles and practices of life and property insurance with special reference to its relationship to our social and economic life. (Johnson.)

ECON. 107 f. *Business Law* (3)—Three lectures. Prerequisite, junior standing.

Legal aspects of business relationships, contracts, negotiable instruments, agency, partnerships, corporations, real and personal property, and sales. (Johnson.)

ECON. 108 s. *Business Law* (3)—Three lectures. Prerequisite, Econ. 107 f.

A continuation of Econ. 107 f. (Johnson.)

ECON. 109 y. *Introductory Accounting* (6)—Two lectures; one laboratory. Open to sophomores with the consent of the instructor.

This course has two aims; namely, to give the prospective business man an idea of accounting as a means of control, and to serve as a basic course for advanced and specialized accounting. Methods and procedure of accounting in the single proprietorship, partnership, and corporation are studied. (Wedeberg.)

ECON. 110 y. *Principles of Accounting* (6)—Three lectures. Prerequisite, Econ. 109 y.

A continuation of Econ. 109 y with emphasis upon the theory of accounting. Special phases of corporation accounting are studied. The introduction of accounting systems for manufacturing, commercial, and financial institutions. (Wedeberg.)

ECON. 112 s. *Land Transportation* (3)—Three lectures. Prerequisite, Econ. 3 y or Econ. 5f or s. Not open to students who receive credit in A. E. 101 s.

The development of inland means of transportation in the United States. This course is devoted largely to a survey of railway transportation. Some study is given to other transportation agencies. (Daniels.)

ECON. 113 f. *Public Utilities* (2)—Two lectures. Prerequisite, Econ. 3 y.

The development of public utilities in the United States, economic and legal characteristics, regulatory agencies, valuation, rate of return, and public ownership. (Johnson.)

ECON. 114 s. *Public Finance* (2)—Two lectures. Prerequisite, Econ. 3 y.

The nature of public expenditures, sources of revenue, taxation, and budgeting. Special emphasis upon the practical, social, and economic problems involved. (Johnson.)

ECON. 116 s. *Principles of Foreign Trade* (3)—Three lectures. Prerequisite, Econ. 3 y, Econ. 1 f, and Econ. 2 s, or their equivalent.

The basic principles of import and export trade, as influenced by the differences in methods of conducting domestic and foreign commerce. (Daniels.)

ECON. 117 f. *History of Economic Theory* (2)—Two lectures. Prerequisite, Econ. 3 y and senior standing.

History of economic doctrines and theories from the eighteenth century to the modern period. (Johnson.)

ECON. 118 s. *History of Economic Theory* (2)—Two lectures. Prerequisite, Econ. 117 f or consent of instructor.

A continuation of Econ. 117 f. (Johnson.)

ECON. 119 f. *Advanced Economics* (2)—Two lectures. Prerequisite, Econ. 3 y and senior standing.

An analysis of the theories of contemporary economists. Special attention is given to the problems of value and distribution. (Brown.)

ECON. 120 s. *Applied Economics* (2)—Two lectures. Prerequisite, Econ. 119 f or consent of instructor.

Current economic problems are studied from the viewpoint of the economist. Lectures and class discussions based on assigned readings. (Brown.)

ECON. 122 s. *Cost Accounting* (2)—Two lectures. Prerequisite, Econ. 109 y and consent of instructor.

Process cost accounting; specific order cost accounting; manufacturing expense; application of accounting theory; preparation of analytical statements. (Wedeberg.)

ECON. 124 s. *Income* Tax (2)—Two lectures. Prerequisite, Econ. 109 y and consent of the instructor.

A practical application of the Revenue Act of 1932. The problems cover all types of returns. (Not given in 1933-1934.) (Wedeberg.)

For Graduates

ECON. 201 y. *Thesis* (4-6)—Graduate standing. (Staff.)

ECON. 203 y. *Seminar* (4)—Prerequisite, consent of instructor.

Designed to meet the needs of graduate students of the Department of Economics. Discussion of major problems in the field of economic theory. Presentation of reports based upon original investigations. (Staff.)

B. Sociology

SOC. 1 f. *Principles of Sociology* (3)—Three lectures. Prerequisite, sophomore standing.

An analysis of community and social institutions; processes and products of human interaction; the relation between society and the individual; social change.

SOC. 2 s. *Cultural Anthropology* (2)—Two lectures. Prerequisite, sophomore standing.

An analysis of several primitive cultures and of modern society for the purpose of ascertaining the nature of culture, and culture processes. Museum exhibits will be correlated with class work.

For Advanced Undergraduates and Graduates

SOC. 101 f. *Rural Sociology* (2)—Two lectures.

Historical approach to rural life; structure and functions of rural communities; rural institutions and their problems; psychology of rural life; statistical analysis of rural population; relation of rural life to the major social processes; the reshaping of rural life. (Bellman.)

SOC. 102 s. *Urban Sociology* (2)—Two lectures.

Historical survey of cities; statistical analysis of city groups; the nature and significance of the urbanization process; the social structure and functions of the city; urban personalities and groups; social change and problems due to the impact of the urban environment. (Bellman.)

SOC. 107 y. *Social Pathology and Social Work* (4)—Two lectures. Prerequisite, Soc. 1 f.

Causative factors and social complications in individual and group pathological conditions; types of social work and institutional treatment; the theory and technic of social case work; visits to major social agencies. (Bellman.)

SOC. 109 f. *Labor Problems* (2)—Two lectures. Prerequisite, Econ. 3 y. or Soc. 1 f.

The background of labor problems; labor organizations; labor legislation; unemployment and its remedies; wages, working conditions, and standards of living; agencies and programs for the promotion of industrial peace. (Bellman.)

SOC. 110 s. *The Family* (2)—Two lectures. Prerequisite, Soc. 1 f.

Anthropological and historical backgrounds; biological, economic, psychological, and sociological bases of the family; the role of the family in personality development; family tension, maladjustment, and disorganization; family adjustment and social change. (Bellman.)

(For other courses see Education and Agricultural Education and Rural Life.)

EDUCATION

PROFESSORS SMALL, COTTERMAN, SPROWLS, MACKERT, LONG;
ASSISTANT PROFESSOR BRECHBILL; MISS SMITH,
MISS PHILIPS, MRS. BARTON, MISS CLOUGH.

GUID. 1 y. *College Aims* (2)—One lecture. Required of freshmen in the College of Education; elective for other freshmen.

This course is designed to assist students in adjusting themselves to the demands and problems of college and professional and intellectual life, and to serve as a foundation for guidance in the selection of college work during subsequent years. Among other activities, it includes a consideration of the functions of the college, institutional backgrounds, student programs and problems, case studies, investigations, and reports. (Cotterman.)

A. History and Principles

ED. 2 f. *Introduction to Teaching*—A (2). Required of sophomores in Education.

A finding course, with the purpose of assisting students to decide whether they have qualities requisite to success in teaching. Study of the physical qualifications, personality traits, personal habits, use of English, speech, and habits of work; and of the nature of the teacher's work.

ED. 3 s. *Introduction to Teaching—B* (2).

A continuation of Ed. 2 f.

ED. 5 s. *Technic of Teaching* (3)—Required of juniors in Education. Prerequisite, Ed. 4 f. Not for graduate credit.

Educational objectives and outcomes of teaching; types of lesson; problem, project, and unit; measuring results and marking; socialization and directed study; classroom management; observation. (Long.)

For Advanced Undergraduates and Graduates

ED. 103 s. *Principles of Secondary Education* (3)—Required of all seniors in Education. Prerequisites, Ed. 4 f, Ed. 5 s, and full senior standing.

Evolution of the high school; European secondary education; articulation of the high school with the elementary school, college, and technical school, and with the community and the home; the junior high school; high school pupils; programs of study and the reconstruction of curricula; teaching staff; student activities. (Small, Long.)

ED. 104 f. *History of Education* (3)—Senior Elective.

History of the evolution of educational theory, institutions, and practices. Emphasis is upon the modern period. (Small.)

ED. 105 f. *Educational Sociology* (3)—Senior Elective.

Education as social adjustment in foreign countries; major educational objectives; the function of educational institutions; the program of studies; objectives of the school subjects; group needs and demands; methods of determining educational objectives. (Cotterman.)

ED. 110 f. *The Junior High School* (3)—Senior Elective.

This course considers the functions of the Junior High School in the American public school system. Its development, present organization, curricula, and relation to upper and lower grades will be emphasized. (Long.)

ED. 111 s. *Lives of Scientists* (2).

A study of the major achievements and interesting incidents in the lives of the pioneers of science. Though designed especially to provide enrichment material for the use of high school teachers, the course is of general cultural value. (Brechbill.)

AG. ED. 106 s. *Rural Life and Education* (See Agricultural Education).

For Graduates

ED. 201 y. *Seminar in Education* (6)—(The course is organized in semester units.)

Problems in educational organization, administration, and curriculum. Study of current literature; individual problems. (Small.)

ED. 202 s. *Higher Education in the United States* (3)

European backgrounds of American higher education; the development of higher education in the United States; present day adjustment movements in college; points of view in college teaching; uses of intelligence and other standardized tests; short answer examinations, course construction. (Cotterman.)

ED. 204 s. *The Senior High School* (3)—This course will consider the principal's duties in relation to organization for operation, administration, and supervision of instruction, and community relationships. (Long.)

ED. 251 y. *Thesis* (6).

B. Educational Psychology

ED. 4 f. *Educational Psychology* (3)—Required of all juniors in Education.

This course deals with the laws of learning and habit formation in their application to teaching in the high school. Individual differences; the known laws of learning; types of learning and their relation to types of subject matter; psychological principle involved in lesson assignments, tests, and examinations; incentives and discipline; mental hygiene of instruction.

For Advanced Undergraduates and Graduates

ED. 106 s. *Advanced Educational Psychology* (3)—Prerequisites, Ed. 4 f and Ed. 5 s. The latter may be taken concurrently with Ed. 106 s.

A study of original nature and development of the human organism. Followed by a study of the possibilities of organized behavior in terms of educational achievement. (Sprowls.)

ED. 107 f. *Educational Measurements* (3)—Prerequisites, Ed. 4 f and Ed. 5 s.

A study of typical educational problems involving educational scales and standard tests. Nature of tests, methods of use, analysis of results, and practical applications in educational procedure. Emphasis will be upon tests for high school subjects. (Sprowls.)

ED. 108 s. *Mental Hygiene* (3)—Prerequisite, Ed. 4 f or Psych. 1 f or s or equivalent.

Normal tendencies in the development of character and personality. Solving problems of adjustment to school and society; obsessions, fears, compulsions, conflicts, inhibitions, and compensations. Methods of personality analysis. (Sprowls.)

For Graduates

ED. 206 y. *Seminar in Educational Psychology* (6).

For candidates for advanced degrees who are working on special problems. Hours to be arranged. (Sprowls.)

ED. 252 y. *Thesis* (6).

C. Methods in High School Subjects

ED. 120 f. *English in the High School* (4)—Prerequisites, Ed. 4 f, Ed. 5 s.

Objectives in English in the different types of high schools; selection and organization of subject matter in terms of modern practice and group needs; evaluation of texts and references; bibliographies. Methods of procedure and types of lessons; the use of auxiliary materials; lesson plans; measuring results. (Smith.)

ED. 121 f or s. *Supervised Teaching of English* (3)—Observation and supervised teaching. Minimum of 20 teaching periods required. (Smith.)

ED. 122 f. *The Social Studies in the High School* (4)—Prerequisites, Ed. 4 f, Ed. 5 s.

Selection and organization of subject matter in relation to the objectives and present trend in the Social Studies; texts and bibliographies. Methods of procedure and types of lessons; the use of auxiliary materials; lesson plans; measuring results. (Long.)

ED. 123 f or s. *Supervised Teaching of the Social Studies* (3)—Observation and supervised teaching. Minimum of 20 teaching periods required. (Long.)

ED. 124 f. *Modern Language in the High School* (4)—Prerequisites, Ed. 4 f, Ed. 5 s.

Objectives of modern language teaching in the high school; selection and organization of subject matter in relation to modern practice and group needs; evaluation of texts and references; bibliographies. Methods of procedure and types of lessons; lesson plans; special devices; measuring results.

ED. 125 f or s. *Supervised Teaching of Modern Language* (3)—Observation and supervised teaching. Minimum of 20 teaching periods required.

ED. 126 f. *Science in the High School* (4)—Prerequisites, Ed. 4 f, Ed. 5 s.

Objectives of science teaching, their relation to the general objectives of secondary education; application of the principles of psychology and of teaching to the science class room situation; selection and organizaion of subject matter; history, trends, and status; textbooks, reference works, and laboratory equipment. Technic of class room and laboratory; measurement, standardized tests; professional organizations and literature; observation and criticism. (Brechbill.)

ED. 127 f or s. *Supervised Teaching of Science* (3)—Obesrvation and supervised teaching. Minimum of 20 teaching periods required. (Brechbill.)

ED. 128 f. *Mathematics in the High School* (4)—Prerequisites, Ed. 4 f, Ed. 5 s.

Objectives; the place of mathematics in secondary education; content and construction of courses; recent trends; textbooks and equipment. Methods of instruction; measurement and standardized tests; professional organizations and literature; observation and criticism. (Brechbill.)

ED. 129 f or s. *Supervised Teaching of Mathematics* (3)—Observation and supervised teaching. Minimum of 20 teaching periods required. (Brechbill.)

ED. 141 f. *Physical Education in the High School* (Boys) (3)—Prerequisites, Ed. 4 f, Ed. 5 s, Phys. Ed. 25 y.

Aim and objective of Physical Education for high school boys; lesson planning; problem cases; methods of handling classes, meets, pageants, and the like; physical and medical examinations; care of equipment; records; grading. (Mackert.)

ED. 143 f or s. *Supervised Teaching of Physical Education* (Boys) (3).

Observation and supervised teaching, twenty class periods. (Mackert.)

ED. 142 f. *Physical Education in the High School* (Girls) (3)—Prerequisites, Ed. 4 f, Ed. 5 s, Ed. 140 y.

Objectives in physical education for girls in the different types of high schools; programs appropriate to high school girls; selection and organization of subject matter; lesson plans. (Phillips.)

ED. 144 f or s. *Supervised Teaching of Physical Education* (Girls) (3).

Observation and supervised teaching, twenty class periods. (Phillips.)

PHYSICAL EDUCATION FOR MEN

PROFESSOR MACKERT

*PHYS. ED. 1 y. *Physical Activities* (2).

An activities course for freshman boys meeting three periods a week throughout the year. Activities included are soccer, touch football, basketball, volleyball, baseball (soft), track, and natural gymnastics.

*PHYS. ED. 3 y. *Physical Activities* (4).

An activities class for sophomore boys meeting three periods a week throughout the year. Activities included are soccer, touch football, basketball, volleyball, track (indoor and outdoor), baseball (soft and hard), fencing, wrestling, boxing, ping pong, horseshoes, tennis, and natural gymnastics.

PHYS. ED. 11 f. *Personal Hygiene* (2).

Freshman course required of men whose major is physical education and open to other freshmen and sophomores.

This course is designed to help the incoming student live at his best and to realize the finest ideals of his group.

PHYS. ED. 13 y. *Coaching High School Athletics* (6).

Required of junior men whose major is physical education; elective for other junior and senior students.

Football, soccer, basketball, track, and baseball are analyzed from the point of view of successful team play on an interscholastic basis. (Mackert.)

PHYS. ED. 21 s. *Survey of Physical Education* (2).

Freshman course required of men whose major is physical education and open to women whose major is physical education.

This course is an introduction to the study of physical education. It includes a survey of the history of physical education and the possibilities of the profession.

**Students who are registered in the College of Education or in the Agricultural Education or Arts and Science Education curriculums, and whose major or minor is Physical Education may take both Basic Military and first and second year Physical Education courses for credit. In all other courses credit will be allowed for either Basic Military or first and second year physical education, but not for both.*

PHYS. ED. 23 y. *Technics of Physical Education* (4).

Sophomore course required of men whose major is physical education.

A thorough study of various fundamental skills in the performance of physical activities.

PHYS. ED. 25 y. *Analysis of Physical Education Activities* (6).

Junior course for men whose major is physical education.

This course aims to analyze the values in physical activities of all types for high school boys. The program of natural activities will be offered as an illustration of physical education in the secondary school system. (Mackert.)

ED. 141 f. *Physical Education in the High School* (Boys) (3).

ED. 143 f or s. *Supervised Teaching of Physical Education* (Boys) (3).

PHYSICAL EDUCATION FOR WOMEN

MISS STAMP, MISS PHILLIPS.

PHYS. ED. 2 y. *Personal Hygiene* (1).

Freshman course required of all women.

This course consists of instruction in hygiene one period a week throughout the year. The health ideal and its attainment, care of the body relative to diet, exercise, sleep, bathing, etc., and social hygiene.

PHYS. ED. 4 y. *Physical Activities* (1).

Freshman course required of all women.

This is an activities course, which meets two periods a week throughout the year. It will present the following phases of physical education: sports, such as hockey, soccer, basketball, baseball, speedball, archery, and volleyball; natural activities, such as tumbling and stunts; and dancing, such as clog, folk, and athletic.

PHYS. ED. 6 y. *Personal Hygiene* (2).

Sophomore course required of all women.

This course is a continuation of the freshman course. The work in hygiene includes the elements of physiology, the elements of home, school, and community hygiene, and a continuation of social hygiene.

PHYS. ED. 8 y. *Physical Activities* (2).

Sophomore course required of all women.

This course is a continuation of the work of the freshman year. In addition to the regular work, the student is permitted to elect clog, folk, or natural dancing.

PHYS. ED. 10 y. *Dancing* (4-8).

Required of all sophomores planning to make physical education a major, and open to other sophomores, juniors, and seniors.

This course consists of one required lecture a week and one to three two-hour laboratory periods a week. The course credit will be 2, 3, or 4 hours, conforming to the number of laboratory periods. The laboratory work is of three types as follows:

I. Clogs and Athletic dances suitable for both high school boys and girls. Tap shoes will be required.

II. Folk dances of various countries.

III. Natural dancing, a type of dancing based upon free and natural movements, such as skipping, walking, running, etc.

A special costume will be required.

Both elementary and intermediate sections will be offered. Admission to the intermediate is with the approval of the instructor.

PHYS. ED. 12 f. *Games* (3).

Required of all sophomores whose major is physical education, and open to other undergraduates.

This course will aim to present games and stunts suitable for the elementary school and recreational groups. Both theory and practice will be offered.

PHYS. ED. 14 s. *History of Physical Education* (3).

Required of all sophomores whose major is physical education.

This course aims to give the student a knowledge of the history of physical education with especial emphasis upon the richness of its background.

PHYS. ED. 16 f and s. *First Aid* (1).

This course is required of all juniors whose major is physical education.

It will aim to present the fundamentals necessary for caring for accidents and injuries until medical attention can be secured. Practical work will be required of all students.

PHYS. ED. 18 f and s. *Athletics* (2-2).

Required of all juniors whose major is physical education and open to other juniors and seniors.

This course includes one lecture a week, and two periods of practical work each semester. The practical work is organized in a series of sport units, four for each semester, as shown below and designated as "practical sections." Any three of the four may be selected.

First semester (18 f): hockey, soccer, fieldball, basketball. Second semester (18 s): volleyball and handball, speedball, archery, baseball. Instruction will be given in the theory, practice, organization, and teaching of each sport. (Phillips.)

PHYS. ED. 20 f and s. *Natural Gymnastics* (2-2).

Required of all juniors with a major in physical education for at least one semester.

This course presents stunts, games, and self-testing activities based upon fundamental movements which are inherent in the race. Teaching technics will be considered and material offered which is suitable to varying age groups. (Phillips.)

PHYS. ED. 22 s. *Organization of Athletic Activities for Girls* (2).

This course is open to seniors with a major in physical education.

A lecture course dealing with the organization of material and the developing of athletic activities for girls in such situations as camp, school, and playground.

PHYS. ED. 26 y. *Coaching and Officiating; Athletics for Girls* (4).

ED. 140 y. *Physical Education Activities for High School Girls* (4).

ED. 142 f. *Physical Education in the High Schools* (Girls) (3).

ED. 144 s. *Supervised Teaching and Physical Education* (Girls) (3).

ENGINEERING

PROFESSORS JOHNSON, CREESE, STEINBERG, NESBIT; ASSOCIATE PROFESSORS SKELTON, HODGINS; ASSISTANT PROFESSORS HOSHALL, BAILEY, PYLE; DR. RESSER, MR. HENNICK.

Civil Engineering

C. E. 101 f. *Elements of Railroads* (3)—Two lectures; one laboratory. Prerequisite, Surv. 2 y. Required of juniors in Civil Engineering.

The theory and practice of railroad surveys, alignment and earthwork. Preliminary steps toward complete plans for a short railroad. (Skelton.)

C. E. 102 s. *Elements, Design of Structures* (5) — Three lectures; two laboratories. Prerequisite, Mech. 2 y. Required of juniors in Civil Engineering.

The theory and elementary design of masonry and steel structures, including plain and reinforced concrete. Analysis of stresses in beams, columns, retaining walls, dams, roof trusses, plate girders, and bridges. (Steinberg.)

C. E. 103 s. *Elements of Steel Design* (2)—One lecture; one laboratory. Required of juniors in Mechanical Engineering.

Design of steel beams and columns. Analysis of roof trusses, plate girders, and traveling cranes. Particular application to industrial buildings. (Skelton.)

C. E. 104 y. *Buildings, Masonry and Steel* (8)—Three lectures; one laboratory. Prerequisite, C. E. 102 s. Required of seniors in Civil Engineering.

A continuation of C. E. 102 s with particular application to the design of buildings both of masonry and of steel. (Skelton.)

C. E. 105 y. *Bridges, Masonry and Steel* (8)—Three lectures; one laboratory. Prerequisite, C. E. 102 s. Required of seniors in Civil Engineering.

A continuation of C. E. 102 s with particular application to the design of bridges both of masonry and of steel. (Steinberg.)

C. E. 106 f. *Highways* (4)—Three lectures; one laboratory. Prerequisites, Surv. 101 f, Mech. 2 y. Required of seniors in Civil Engineering.

Location, construction, and maintenance of roads and pavements. Highway contracts and specifications, estimates and costs, highway work, highway legislation, highway economics, and highway transportation. The course will include, in addition to lecture and classroom work, field inspection trips. (Johnson and Steinberg.)

C. E. 107 y. *Sanitation* (6)—Three lectures. Prerequisite, Mech. 2 y. Required of seniors in Civil Engineering.

Methods of estimating consumption and designing water supply and sewerage systems. (Pyle.)

C. E. 108 s. *Thesis* (3)—Required of seniors in Civil Engineering.

In this course the student selects, with faculty approval, a subject in Civil Engineering design or research. He makes such field or laboratory studies as may be needed. Weekly reports of progress are required, and frequent conferences are held with the member of the faculty to whom the student is assigned for advice. A written report is required to complete the work. (Johnson.)

Drafting

Dr. 1 y. *Engineering Drafting* (2)—One laboratory. Required of all freshmen in Engineering.

Freehand Drawing—Lettering, exercises in sketching of technical illustrations and objects, proportion and comparative measurements.

Mechanical Drawing—Use of instruments, projections and working drawings, drawing to scale in pencil and in ink, topographic drawing, tracing and blueprinting.

Dr. 2 y. *Descriptive Geometry* (4)—Two laboratory periods. Prerequisite, Dr. 1y. Required of all sophomores in Engineering.

Orthographic projection as applied to the solution of problems relating to the point, line, and plane, intersection of planes with solids, and development. Generation of surfaces; planes, tangent and normal to surfaces; intersection and development of curved surfaces. Shades, shadows, and perspective.

Electrical Engineering

E. E. 101 y. *Principles of Electrical Engineering* (8)—Three lectures; one laboratory. Prerequisites, Phys. 2 y, Math. 6 y. Required of seniors in Mechanical Engineering.

Study of elementary direct current and alternating current characteristics. Principles of construction and operation of direct and alternating current machinery.

Experiments on the operation and characteristics of generators, motors, transformers, and control equipment. (Creese.)

E. E. 102 y. *Direct Currents* (10)—Three lectures; two laboratories. Prerequisites, Phys. 2 y and Math. 6 y.

Principles of design, construction, and operation of direct current generators and motors and direct current control apparatus. The construction, characteristics, and operation of primary and secondary batteries and the auxiliary control equipment. Study of elementary alternating current circuits.

Experiments on the calibration of laboratory instruments, the manipulation of precision instruments, battery characteristics, and the operation and characteristics of direct current generators and motors. (Hodgins.)

E. E. 103 y. *Electrical Machine Design* (2)—One laboratory. Prerequisites, Phys. 2 y, Math. 6 y, and to take concurrently with E. E. 102 y.

Materials of construction and design of the electric and magnetic circuits of direct current generators and motors. (Hodgins.)

E. E. 104 y. *Alternating Currents* (10)—Three lectures; two laboratories. Prerequisite, E. E. 102 y.

Analytical and graphic solution of problems on single phase and polyphase circuits; construction, characteristics, and operation of all types of alternating current generators and motors; switchboard appliances, the use of the oscillograph; alternating current power measurements. (Creese.)

E. E. 105 y. *Electrical Machine Design* (3)—One laboratory first semester; two laboratories second semester. Prerequisites, E. E. 103 y, M. E. 101 f, and to take concurrently E. E. 104 y.

Materials of construction and design of the electric and magnetic circuits of alternating current generators, motors, and transformers. (Hodgins.)

E. E. 106 y. *Electric Railways and Power Transmission* (7)—Three lectures first semester; four lectures second semester. Prerequisite, E. E. 102 y, and to take concurrently E. E. 104 y.

Traffic studies, train schedules, motor characteristics, and the development of speed-distance and power-time curves, systems of control, motors and other railway equipment, electrification system for electric railways, including generating apparatus, transmission lines, substations and distribution of electrical energy for car operation; electrification of steam roads and application of signal systems, problems in operation from the selection of proper car equipment to the substation apparatus.

Survey of the electrical equipment required in central stations and substations, transmission of electric power, practical problems illustrating the principles of installation and operation of power machinery. (Hodgins.)

E. E. 107 y. *Telephones and Telegraphs* (7)—Three lectures first semester; three lectures and one laboratory second semester. Prerequisite, E. E. 102 y, and to take concurrently E. E. 104 y.

History and principles of magneto telephone and variable resistance transmitter, carbon transmitter, telephone receiver, induction coils, and calling equipment. These components of the telephone then are studied as a complete unit in the local battery and common battery telephones. Magneto and common battery switchboards used in telephone exchanges, automatic telephones, and the operation of simple, duplex, and quadruplex telegraphy. Solution of analytical problems on telephone transmission.

In the laboratory the units are assembled and operated. (Hodgins.)

E. E. 108 y. *Radio Telegraphy and Telephony* (7)—Two lectures and one laboratory first semester; three lectures and one laboratory second semester. Prerequisite, E. E. 102 y, and to take concurrently E. E. 104 y.

Principles of radio telegraphy and telephony, design, construction, and operation of transmitting and receiving apparatus, and special study of the use of the vacuum tube for short wave transmitting and receiving. Experiments include radio frequency measurements and the testing of various types of receiving circuits. (Creese.)

E. E. 109 y. *Illumination* (7)—Three lectures first semester; three lectures and one laboratory second semester. Prerequisite, E. E. 102 y, and to take concurrently E. E. 104 y.

Series systems of distribution, methods of street lighting, calculation of voltage drop, regulation, weights of wire and methods of feeding parallel systems, principles and units used in illumination problems, lamps and reflectors, candle-power measurements of lamps, measurement of illumination intensities and calculations for illumination of laboratories and classrooms. (Creese.)

General Engineering Subjects

ENGR. 1 y. *Prime Movers* (4)—Two lectures. Prerequisites, Math. 6 y and Phys. 2 y. Required of juniors in Civil Engineering.

Salient features of the operation of steam, gas, hydraulic and electric prime movers and pumps. Comparison of types of each, methods of assembling or setting up in place for operation. Service tests. (Bailey.)

ENGR. 2 y. *Prime Movers* (4)—Two lectures. Prerequisites, Math. 6 y and Phys. 2 y. Required of juniors in Electrical Engineering.

This course is similar in content to Engr. 1 y, but with greater emphasis placed on details preparatory to work in Thermodynamic problems in the senior year. (Bailey.)

ENGR. 3 y. *Engineering Geology* (2)—One laboratory. Lectures and field trips. Required of all juniors in Engineering.

Study of common rocks and minerals, geologic processes and conditions affecting problems of water supply, bridge, railroad, and highway construc-

tion, dams and reservoirs, tunnels, canals, river and harbor improvements, irrigation works, and rock excavation. (Resser.)

ENGR. 101 s. *Engineering Economy* (1)—Required of all seniors in Engineering.

A study of the economic aspects of an engineering decision; including segregation of costs and cost analysis, technic of estimating costs, and comparisons of ultimate economy. (Steinberg.)

ENGR. 102 s. *Engineering Jurisprudence* (1)—One lecture. Required of all seniors in Engineering.

A study of the fundamental principles of law relating to business and to engineering; including contracts, agency, sales, negotiable instruments, corporations, and common carriers. These principles are then applied to the analysis of general and technical clauses in engineering contracts and specifications. (Steinberg.)

Mechanics

MECH. 1 y. *Engineering Mechanics* (7)—Three lectures and one laboratory first semester. Two lectures and one laboratory second semester. Prerequisites, Math. 6 y and Phys. 2 y. Required of juniors in Electrical and Mechanical Engineering.

Applied Mechanics—The analytical study of statics dealing with the composition and resolution of forces, moments and couples, machines and the laws of friction, dynamics, work, energy, and the strength of materials.

Graphic Statics—The graphic solution of problems in mechanics, center of gravity, moments of inertia and determination of stresses in frame structures.

Elements of Hydraulics—Flow of water in pipes, through orifices and in open channels. Determination of the co-efficient of discharge, velocity, and contraction in pipes and orifices. (Skelton and Bailey.)

MECH. 2 y. *Engineering Mechanics* (9)—Four lectures and one laboratory first semester. Three lectures and one laboratory second semester. Prerequisites, Math. 6 y and Phys. 2 y. Required of juniors in Civil Engineering.

This course is similar in content to Mech. 1 y, but with greater emphasis placed on strength of material and hydraulics. (Steinberg and Skelton.)

MECH. 3 s. *Materials of Engineering* (2)—One lecture; one laboratory. To be taken concurrently with Engineering Mechanics. Required of all juniors in Engineering.

The composition, manufacture, and properties of the principal materials used in engineering and of the conditions that influence their physical characteristics. The interpretation of specifications and of standard tests. Laboratory work in the testing of steel, wrought iron, timber, brick, cement, and concrete. (Johnson, Pyle, and Hoshall.)

MECH. 101 f. *Thermodynamics* (3)—Three lectures. Prerequisites, Phys. 2 y, Engr. 1 y. Required of seniors in Electrical Engineering. (Bailey.)

MECH. 102 y. *Thermodynamics* (6)—Three lectures. Prerequisite, Phys. 2 y. Required of juniors in Mechanical Engineering.

Thermodynamics as applied to properties of gases, cycles of heat, engines using gases. Properties of vapors. Entropy. The internal combustion engine. The steam turbine. Flow of fluids, and the application of thermodynamics to compressed air and refrigerating machinery. (Bailey.)

Mechanical Engineering

M. E. 101 f. *Elements of Machine Design* (1)—One laboratory. Prerequisites, Math. 6 y and Phys. 2 y. Required of juniors in Electrical Engineering.

Empirical design of machine parts. (Bailey.)

M. E. 102 y. *Kinematics and Machine Design* (7)—Two lectures; one laboratory first semester; two lectures, two laboratories second semester. Prerequisites, Math. 6 y and Phys. 2 y. Required of juniors in Mechanical Engineering.

The application of the principles involved in determining the properties and forms of machine parts. The design of bolts, screws, shafting, and gears. The theory and practice of the kinematics of machinery, as applied to ropes, belts, chains, gears and gear teeth, wheels in trains, epicyclic trains, cams, linkwood, parallel motions. Miscellaneous mechanisms and aggregate combinations. (Hoshall.)

M. E. 103 f. *Steam Boilers and Feed Water Heaters* (2)—Two lectures. Prerequisite, Mech. 102 y. Required of seniors in Mechanical Engineering.

Calculations and problems dealing with boilers and pressure vessels as to materials used and strength required. (Bailey.)

M. E. 104 f. *Heat Power Engineering* (2)—Two lectures. Prerequisite, Mech. 102 y. Required of seniors in Mechanical Engineering.

This course deals with the operation of power plants and the design of steam engines, turbines, boilers, condensers, and feed water heaters. (Nesbit.)

M. E. 105 f. *Heating and Ventilation* (2)—Two lectures. Prerequisites, M. E. 103 f and Mech. 1 y. Required of seniors in Mechanical Engineering.

Problems involving the methods in use in various systems, as to size and capacity necessary for any required installation. (Bailey.)

M. E. 106 s. *Design of Pumping Machinery* (2)—One lecture, one laboratory. Prerequisites, M. E. 102 y and Mech. 1 y. Required of seniors in Mechanical Engineering.

Design of double acting steam pumps, centrifugal pumps, vacuum pumps, and water works pumps. (Nesbit.)

M. E. 107 y. *Design of Prime Movers* (6)—Two lectures; one laboratory. Prerequisites, M. E. 102 y, M. E. 104 f, Mech. 1 y.

Required of seniors in Mechanical Engineering. The design and proportioning of parts of essential prime movers for power plants. (Nesbit.)

M. E. 108 s. *Design of Power Plants* (2)—One lecture; one laboratory. Prerequisites, M. E. 104 f, M. E. 105 f, M. E. 107 y. Required of seniors in Mechanical Engineering.

The design of complete power plants, including the layout and cost of building, installation of equipment, and determination of size for best financial efficiency. (Nesbit.)

M. E. 109 y. *Mechanical Laboratory* (2)—One laboratory. Prerequisites, Engr. 1 y; Mech. 1 y. Required of seniors in Mechanical Engineering.

Calibration of instruments, gauges, indicator springs, planimeters, steam, gas, and water meters.

Indicated and brake horsepower of steam and internal combustion engines, setting of plain valves, Corliss valves. Tests for economy and capacity of boilers, engines, turbines. Pumps and other prime movers. Feed water heaters, condensers; B. T. U. analysis of solid, gaseous, and liquid fuels and other complete power plant tests. (Nesbit and Bailey.)

Shop

SHOP. 1 y. *Shop and Forge Practice* (2)—One laboratory. Required of all freshmen in Engineering.

The use and care of wood-working tools, exercises in sawing, planing, turning, and laying out work from blueprints. Patternmaking with moulding and casting demonstrations to give understanding of general principles. Forging of iron and steel, welding and making of carbon steel tools. Demonstrations in oxy-acetylene welding of steel, cast iron, brass, and aluminum, also brazing of malleable iron and steel.

SHOP 2 f. *Machine Shop Practice* (1)—One laboratory. Prerequisite, Shop 1 y. Required of sophomores in Mechanical and Electrical Engineering.

Exercises in bench work, turning, planing, drilling, and pipe threading.

SHOP. 3 s. *Machine Shop Practice* (2)—One lecture; one laboratory. Prerequisite, Shop 2 f. Required of sophomores in Mechanical and Electrical Engineering.

Advanced practice with standard machine shop machines. Exercises in thread cutting, surface grinding, fluting, and cutting of spur and twisted gears.

Calculations of machine shop problems involving lathe and milling ma-

chines. Problems relating to methods of manufacture of machine parts by use of jigs and time-saving fixtures.

SHOP. 4 s. *Foundry Practice* (1)—One laboratory. Prerequisite, Shop 1 y. Required of juniors in Mechanical Engineering.

Casting in brass, aluminum, and cast iron. Core making. The operation of furnace and cupola. Lectures on metals, fuels, and a foundry equipment.

Surveying

SURV. 1 f. *Surveying* (1)—Lecture and laboratory work. Prerequisite, Math. 3 f and 4 s. Required of sophomores in Mechanical and Electrical Engineering.

Theory of and practice in the use of the tape, compass, transit, and level. General surveying methods, map reading, traversing, theory of stadia.

SURV. 2 y. *Plane Surveying* (4)—One lecture; one laboratory. Prerequisite, Math. 3 f and 4 s. Required of sophomores in Civil Engineering.

Land surveying and map making for topography and planning. Practice in stadia. Computations of coordinates. Plotting of control and detail. Establishment of line and grade for construction purposes. Laying out simple curves. Estimation of earthwork.

SURV. 101 f. *Advanced Surveying* (3)—One lecture; two laboratories. Prerequisite, Surv. 2 y. Required of juniors in Civil Engineering.

Adjustment of Instruments. Determination of azimuth by stellar and solar observations. Triangulation, precise leveling, trigonometric leveling and geodetic surveying, together with the computations and adjustments necessary.

(Pyle.)

ENGLISH LANGUAGE AND LITERATURE

PROFESSOR HOUSE; ASSOCIATE PROFESSORS HARMAN, HALE;
ASSISTANT PROFESSOR LEMON; MR. FITZHUGH, DR. MACBETH,
MR. MURPHY, MR. COOLEY, MR. BALL, MRS. COE.

ENG. 1 y. *Composition and Rhetoric* (6)—Three lectures. Freshman year. Prerequisite, three units of high school English. Required of all four-year students.

Study of the principles of style, syntax, spelling, punctuation. Detailed examination of standard essays, one drama, and one novel. Written themes and book reviews, exercises in grammatical analysis and in paragraph writing.

ENG. 2 y. *Elements of Literature* (6)—Three lectures. Prerequisite, three units of high school English.

Examination of the principles of literary form. Study and interpretation of selected classics.

ENG. 3 f. *Advanced Composition and Rhetoric* (2)—Two lectures. Prerequisite, Eng. 1 y. Eng. 3 f and 4 s are required courses for all students whose major is English.

Study and analysis of the best modern essays as a basis of class papers. Also original themes on assigned topics.

ENG. 4 s. *Advanced Composition and Rhetoric* (2)—Two lectures. Prerequisite, Eng. 3 f.

Continuation of Eng. 3 f.

ENG. 5 f. *Expository Writing* (2)—Two lectures. Prerequisite, Eng. 1 y.

Study of the principles of exposition. Analysis and interpretation of material bearing upon scientific matter. Themes, papers, and reports.

ENG. 6 s. *Expository Writing* (2)—Two lectures. Prerequisite, Eng. 5 f.

Continuation of Eng. 5 f.

ENG. 7 f. *History of English Literature* (3)—Three lectures. Prerequisite, Eng. 1 y. Required of all students whose major is English.

A general survey, with extensive reading and class papers.

ENG. 8 s. *History of English Literature* (3)—Three lectures. Prerequisite, Eng. 7 f.

Continuation of Eng. 7 f.

ENG. 9 f. *American Literature* (3)—Three lectures. Prerequisite, Eng. 1 y.

Lectures on the development of American literary types. Class papers.

ENG. 10 s. *American Literature* (3)—Three lectures. Prerequisite, Eng. 9 f.

Continuation of Eng. 9 f.

ENG. 11 f. *Modern Poets* (3)—Three lectures. Prerequisite, Eng. 1 y.

English and American poets of the latter part of the Nineteenth and of the Twentieth Century.

ENG. 12 s. *Modern Poets* (3)—Three lectures. Prerequisite, Eng. 1 y.

Continuation of Eng. 11 f.

ENG. 13 f. *The Drama* (3)—Three lectures. Prerequisite, Eng. 1 y.

A study of representative plays in the development of English and American drama. Reports and term themes. (Not given in 1933-1934.)

ENG. 14 s. *The Drama* (3)—Three lectures.

Continuation of Eng. 13 f. (Not given in 1933-1934.)

ENG. 15 f. *Shakespeare* (3)—Three lectures. Prerequisite, Eng. 1 y.

An intensive study of selected plays.

ENG. 16 s. *Shakespeare* (3)—Three Lectures. Prerequisite, Eng. 1 y.

Continuation of Eng. 15 f.

ENG. 17 f. *Business English* (2)—Two lectures. Prerequisite, Eng. 1 y.

This course develops the best methods of effective expression, both oral and written, used in business activities.

ENG. 18 s. *Business English* (2)—Two lectures. Prerequisite, Eng. 17 f.

Continuation of Eng. 17 f.

ENG. 19 s. *Introduction to Narrative Literature* (2)—Two lectures. Open to freshmen.

Great stories of the world, in prose and verse.

ENG. 20 y. *Journalism* (2)—One lecture. Open only to members of the staffs of local student publications who are not freshmen.

Study of news and of editorial writing based on the material offered for publication in the University papers, books, or magazines.

For Advanced Undergraduates and Graduates

ENG. 104 f. *Poetry of the Romantic Age* (2)—Two lectures. Prerequisite, Eng. 7 f and 8 s, or Comp. Lit. 105, first semester.

A study of the development of the Romantic movement in England as illustrated in the works of Wordsworth and Coleridge. (Hale.)

ENG. 105 s. *Poetry of the Romantic Age* (3)—Three lectures. Prerequisite, Eng. 7 f and 8 s, or Comp. Lit. 105, first semester.

A study of the works and lives of Byron, Shelley, and Keats. (Hale.)
(This course is identical with the second semester of Comp. Lit. 105 y.)

ENG. 115 f. *Literature of the Eighteenth Century* (3)—Three lectures. Prerequisite, Eng. 7 and 8.

Readings in the period dominated by Defoe, Swift, Addison, Steele, and Pope. (Fitzhugh.)

ENG. 116 s. *Literature of the Eighteenth Century* (3)—Three lectures. Prerequisite, Eng. 7 and 8.

A continuation of Eng. 115 f. Dr. Johnson and his Circle; the Rise of Romanticism; the Letter Writers. (Fitzhugh.)

ENG. 119 y. *Anglo-Saxon* (6)—Three lectures. Some knowledge of Latin and German is desirable, as a preparation for this course. Required of all students whose major is English.

A study of Anglo-Saxon (Old English) grammar and literature. Lectures on the principles of comparative philology and phonetics. (House.)

ENG. 122 f. *The Novel* (2)—Two lectures. Prerequisite, Eng. 1 y.

Lectures on the principles of narrative structure and style. Class reviews of selected novels, chiefly from English and American sources. (House.)

ENG. 123 s. *The Novel* (2)—Two lectures. Prerequisite, Eng. 1 y.

Continuation of Eng. 122 f. (House.)

ENG. 124 f. *English and American Essays* (2)—Two lectures.

A study of the philosophical, critical, and familiar essays of England and America. Bacon, Lamb, Macaulay, Emerson, Chesterton, and others. (House.)

ENG. 126 f. *Victorian Poets* (2)—Two lectures.

Studies in the poetry of Tennyson, Browning, Arnold, Swinburne, and others. (House.)

ENG. 127 s. *Victorian Poets* (2)—Two lectures.

Continuation of Eng. 126 f. (House.)

ENG. 129 f. *College Grammar* (3)—Three lectures. Required of all students whose major is English, and strongly recommended for all whose minor is English.

Studies in the descriptive grammar of modern English, with some account of the history of forms. (Harman.)

ENG. 130 f. *The Old Testament as Literature* (2)—Two lectures. For seniors and graduate students.

A study of the sources, development, and literary types. (Not given in 1933-1934.) (Hale.)

For Graduates

ENG. 201. *Thesis*—Credit proportioned to the amount of work and ends accomplished. (Staff.)

Original research and the preparation of dissertations looking towards advanced degrees.

ENG. 202 y. *Beowulf* (4)—Two lectures. Prerequisite, Eng. 119 y.

Critical study of grammar and versification, with some account of the legendary lore. Alternate with Eng. 203 f and 204 s. (Harman.)

ENG. 203 f. *Middle English* (2)—Two lectures. Prerequisite, Eng. 119 y.

A study of excerpts of the Middle English period, with reference to etymology and syntax. (House.)

ENG. 204 s. *Gothic* (2)—Two lectures. Prerequisite, Eng. 119 y.

A study of the forms and syntax, with readings from the Ulfilas Bible. Correlation of Gothic speech sounds with those of Old English. (House.)

Eng. 203 f and 204 s alternate with Eng. 202 y.

ENG. 205 s. *Browning's Dramas* (2)—Two lectures.

Luria, The Return of the Druses, Pippa Passes, Colombe's Birthday, A Blot in the 'Scutcheon, and others. (House.)

ENG. 206 f. *Victorian Prose* (2)—Two lectures.

Works of Carlyle, Arnold, Mill, Ruskin, and others. (Hale.)

ENG. 207 y. *Medieval Romance in England* (4)—Two lectures. Prerequisite, Eng. 7 f.

Lectures and readings in the cyclical and non-cyclical romances in Medieval England and their sources, including translations from the Old French. (Not given in 1933-1934.) (Hale.)

ENG. 208 y. *The Major Poets of the Fourteenth Century* (4)—Two lectures. Prerequisite, Eng. 7 f.

Lectures and assigned readings in the works of Langland, Gower, Chaucer, and other poets of the fourteenth century. (Hale.)

ENTOMOLOGY

PROFESSOR CORY; ASSISTANT PROFESSOR KNIGHT;
LECTURERS SNODGRASS AND HYSLOP; MR. ABRAMS,
DR. DITMAN, MISS ERICSON.

ENT. 1 f or s. *Introductory Entomology* (3)—Two lecturers; one laboratory. Prerequisite, Zool. 1 f or s.

The relations of insects to the daily life and activities of the student. General principles of structural and systematic entomology. Field work and the preparation of a collection of insects.

ENT. 2 y. *Insect Morphology and Taxonomy* (6)—A two-semester course. Two laboratories. Credit not given for second semester alone. Prerequisite, Ent. 1 f or s.

Studies of the anatomy, physiology, and taxonomy of insects. A fundamental course given in preparation for most of the advanced courses. Lectures given at opportune times during laboratory periods.

ENT. 3 f or s. *Insect Biology* (3)—Two lectures; one laboratory. Prerequisite, Ent. 1 f or s.

A continuation of general entomological problems begun in the first course, with particular emphasis on the adaptations, ecology, interrelations, and behavior of insects.

ENT. 4 f or s. *Special Problems*—Prerequisite—consult department.

The intensive investigation of some entomological subject. A report of the results is submitted as part of the requirement for graduation.

ENT. 5 s. *Insecticides and Their Application* (1)—One laboratory. Prerequisite, Ent. 1 f or s.

The principles of insecticides, their chemistry, preparation, and application; construction, care, and use of spray and dusting machinery; fumigation; methods and apparatus in mechanical control.

ENT. 6 f and s. *Apiculture* (3)—Two lectures, one laboratory. Prerequisites, Zool. 1 f or s, and Ent. 1 f or s. Credit not given for second semester alone.

A study of the life history, yearly cycle, behavior, and activities of the honeybee. The value of honeybees as pollenizers of economic plants and as producers of honey and wax. Theory and practice of apiary management. Designed to be of value to the student of agriculture, horticulture, entomology, and zoology who wishes to keep bees or to understand the biology of the honeybee.

ENT. 7 y. *Entomological Technic and Scientific Delineation* (4). Prerequisite, Ent. 1 f or s.

Collecting, rearing, preserving, and mounting of insects. The preparation of exhibits, materials for instruction, entomological records. Methods of illustrating, including drawing, photography, lantern slide making, and projection. Useful for prospective teachers of biology as well as for the entomological student. (Not offered in 1933-1934.)

For Advanced Undergraduates and Graduates

ENT. 101 y. *Economic Entomology* (4)—Two lectures.

An intensive study of the problems of applied entomology, including life history, ecology, behavior, distribution, parasitism, and control. (Not offered in 1933-1934.) (Cory.)

ENT. 102 y. *Economic Entomology* (4)—Two laboratories.

Expansion of Ent. 101 y to include laboratory and field work in economic entomology. (Not offered in 1933-1934.) (Cory.)

ENT. 103 y. *Seminar* (2)—Time to be arranged.

Presentation of original work, book reviews, and abstracts of the more important literature. (Cory, Knight.)

ENT. 104 y. *Insect Pests of Special Groups* (6). Prerequisite, Ent. 1 f or s.

A study of the principal insects of one or more of the following groups, founded upon food preferences and habitat. The course is intended to give the general student a comprehensive view of the insects that are of importance in his major field of interest and detailed information to the student specializing in entomology.

Insect Pests of 1. Fruit. 2. Vegetables. 3. Flowers, both in the open and under glass. 4. Ornamentals and Shade Trees. 5. Forests. 6. Field Crops. 7. Stored Products. 8. Live Stock. 9. The Household. (Cory.)

ENT. 105 f. *Medical Entomology* (3)—Three lectures. Prerequisite, Ent. 1 f or s, and consent of instructor.

The relation of insects to diseases of man, directly and as carriers of pathogenic organisms. Control of pests of man. The fundamentals of parasitology. (Knight.)

ENT. 106 f or s. *Insect Taxonomy* (3)—Two lectures; one laboratory.

An advanced course dealing with the principles and practices underlying modern systematic entomology. (Hyslop.)

Note—Course 106 runs from November 15 to March 15 to accommodate field workers.

ENT. 107 s. *Theory of Insecticides* (2)—Two lectures.

The development and use of contact and stomach poisons, with regard to their chemistry, toxic action, compatability, and foliage injury. Recent work with insecticides will be especially emphasized. (Ditman.)

For Graduates

ENT. 201 y. *Advanced Entomology* (1-3)—One lecture; one laboratory by arrangement.

Studies of minor problems in morphology, taxonomy, and applied entomology, with particular reference to preparation for individual research. (Cory.)

ENT. 202 y. *Research in Entomology* (6-10).

Advanced students having sufficient preparation, with the approval of the head of the department, may undertake supervised research in morphology, taxonomy, or biology and control of insects. Frequently the student may be allowed to work on Station or State Horticultural Department projects. The student's work may form a part of the final report on the project and be published in bulletin form. A dissertation suitable for publication must be submitted at the close of the studies as a part of the requirements for an advanced degree. (Cory.)

ENT. 203. *Insect Morphology* (2-4)—Two lectures, and laboratory work by special arrangement, to suit individual needs.

Insect Anatomy with special relation to function. Given particularly in preparation for work in physiology and other advanced studies. (Snodgrass.)

ENT. 204 y. *Economic Entomology* (6)—Three lectures. Studies of the principles underlying applied entomology, and the most significant advances in all phases of entomology. (Cory.)

Note: Course 203 begins November 15 and closes March 15, and is taught at 4:30 P. M. in order to accommodate field workers.

FARM FORESTRY

PROFESSOR BESLEY.

FOR. 1 s. *Farm Forestry* (3)—Two lectures; one laboratory. Alternate year course. Junior and senior years. Prerequisite, Bot. 101 f.

A study of the principles and practices involved in managing woodlands on the farm. The course covers briefly the identification of trees; forest protection; management, measurement, and utilization of forest crops; nursery practice; and tree planting. The work is conducted by means of lectures and practice in the woods.

FARM MANAGEMENT

PROFESSOR W. T. L. TALIAFERRO.

F. M. 1. s. *Farm Accounting* (3)—Two lectures; one laboratory. Open to juniors and seniors.

A concise practical course in the keeping of farm accounts and in determining the cost of farm production.

F. M. 2 f. *Farm Management* (4)—Four lectures.

The business of farming from the standpoint of the individual farmer. This course aims to connect the principles and practice which the student has acquired in the several technical courses and to apply them to the development of a successful farm business.

See also Agricultural Economics, page 174.

FARM MECHANICS

PROFESSOR CARPENTER.

F. MECH. 101 f. *Farm Machinery* (3)—Two lectures; one laboratory.

A study of the design and adjustments of modern horse- and tractor-drawn machinery. Laboratory work consists of detailed study of actual machines, their calibration, adjustment, and repair.

F. MECH. 102 s. *Gas Engines, Tractors, and Automobiles* (3)—Two lectures; one laboratory.

A study of the design, operation, and repair of the various types of internal combustion engines used in farm practice.

F. MECH. 104 f. *Farm Shop Work* (1)—One laboratory.

A study of practical farm shop exercises, offered primarily for prospective teachers of vocational agriculture.

F. MECH. 105 f. *Farm Buildings* (2)—Two lectures.

A study of all types of farm structures; also of farm heating, lighting, water supply, and sanitation systems.

F. MECH. 107 s. *Farm Drainage* (2)—One lecture; one laboratory.

A study of farm drainage systems, including theory of tile under-drainage, the depth and spacing of laterals, calculation of grades, and methods of construction. A smaller amount of time will be spent upon drainage by open ditches, and the laws relating thereto.

GENETICS AND STATISTICS

PROFESSOR KEMP.

GEN. 101 f. *Genetics* (3)—Three lectures.

A general course designed to give an insight into the principles of genetics, or of heredity, and also to prepare students for later courses in the breeding of animals or of crops.

GEN. 102 s. *Advanced Genetics* (2)—Two lectures. Prerequisite, Gen. 101 f. Alternate year course.

A consideration of chromosome irregularities and other mutations, interspecies crosses, identity of the gene, genetic equilibrium, and the results of attempts to modify germplasm.

GEN. 111 f. *Statistics* (2)—Two lectures.

A study of the collection, analysis, interpretation, and presentation of statistics. The course includes a study of expressions of type, variability, and correlation, together with the making of diagrams, graphs, charts, and maps.

GEN. 112 s. *Advanced Statistics* (2) — Two lectures. Prerequisite, Gen. 111 f or its equivalent.

A study of the theory of error, measures of relationship, multiple and partial correlation, predictive formulas, curve fitting.

GEN. 114 s. *Elements of Statistics* (3)—Three lectures. Required of students in Business Administration.

A study of the fundamental principles used in statistical investigation.

GEN. 201 y. *Plant Breeding*—Credit according to work done.

GEN. 209 y. *Research*—Credit according to work done.

GEOLOGY

PROFESSOR BRUCE.

GEOL. 1 f. *Geology* (3)—Two lectures; one laboratory.

A textbook, lecture, and laboratory course, dealing with the principles of geology and their application to agriculture. While this course is designed primarily for agriculture students in preparation for technical courses, it may also be taken as part of a liberal education.

GREEK

PROFESSOR SPENCE.

GREEK 1 y. *Elementary Greek* (8)—Four lectures.

Drill and practice in the fundamentals of Greek grammar and the acquisition of a vocabulary, with translation of simple prose.

GREEK 2 y. *Greek Grammar, Composition, and Translation of Selected Prose Work* (8)—Four lectures. Prerequisite, Greek 1 y or two entrance units in Greek.

HISTORY AND POLITICAL SCIENCE

PROFESSORS CROTHERS, SPENCE;
ASSISTANT PROFESSOR JAEGER;
MR. SCHULZ, MR. ASHWORTH.

A. History

H. 1 y. *Modern European History* (6)—Three lectures and assignments.

The object of the course is to acquaint students with the chief events in European History during the modern period. The lectures are so arranged

as to present a comparative and constructive view of the most important events during the period covered.

H. 2 y. *American History* (6)—Three lectures and assignments. Open to sophomores.

An introductory course in American History from the discovery of the New World to the present time.

H. 3 y. *History of England and Greater Britain* (6)—Three lectures and assignments. Open to freshmen.

A survey course of English History.

H. 4 s. *History of Maryland* (2)—Two lectures. Not open to juniors and seniors.

A study of the Colony of Maryland and its development into statehood.

H. 5 f. *Ancient Civilization* (3)—Three lectures. Required of students taking a major or minor in Classical Languages.

Treatment of ancient times, including Geography, Mythology, and Philosophy.

For Advanced Undergraduates and Graduates

H. 101 f. *American Colonial History* (3)—Three lectures and assignments. Prerequisite, H. 2 y.

A study of the political, economic, and social development of the American people from the discovery of America through the formation of the Constitution. (Crothers.)

H. 102 s. *Recent American History* (3)—Three lectures. Prerequisite, H. 2 y.

The history of national development from the close of the reconstruction period to the present time. (Crothers.)

H. 103 y. *American History* 1790-1865 (4)—Two lectures. Prerequisite, H. 2 y.

The history of national development to the reconstruction period. (Crothers.)

H. 104 y. *World History Since* 1914 (6)—Three lectures.

A study of the principal nations of the world since the outbreak of the World War. (Jaeger.)

H. 105 y. *Diplomatic History of Europe in the Nineteenth and Twentieth Centuries* (6)—Three lectures.

A study of the European nations, stressing their political problems and their political activities. (Not given 1933-1934.) (Jaeger.)

H. 106 y. *American Diplomacy* (4)—Two lectures.

A study of American foreign policy. (Not given 1933-1934.) (Crothers.)

H. 107 f. *Social and Economic History of the United States* (2)—Two lectures.

An advanced course giving a synthesis of American life from 1607 to 1828. (Crothers.)

H. 108 s. *Social and Economic History of the United States* (2)—Two lectures.

This course is similar to H. 107 f, and covers the period from 1828 to the present time. (Crothers.)

For Graduates

H. 201 y. *Seminar in American History* (4). (Crothers.)

H. 202 y. *Seminar in European History* (4). (Jaeger.)

B. Political Science

Soc. Sci. 1 y. *Introudction to the Social Sciences* (6). (For description of course, see Economics and Sociology, page 200.)

Pol. Sci. 2 f. *Government of the United States* (3)—Three lectures. Open to sophomores.

A study of the Government of the United States. Evolution of the Federal Constitution; function of the Federal Government.

Pol. Sci. 3 s. *Political Parties in the United States* (3)—Prerequisite, Pol. Sci. 2 f.

The development and growth of American political parties. Party organization and machinery.

For Advanced Undergraduates and Graduates

Pol. Sci. 101 f. *International Law* (3). Three lectures and recitations. Case method.

A study of the sources, nature, and development of international law as found in the decisions of courts and tribunals, both municipal and international. (Jaeger.)

Pol. Sci. 102 s. *International Relations* (3)—Three lectures and conferences.

An examination of the economic and political reasons that motivate nations in their relations with one another. This course is designed to give the student a clear insight into the *actual causes*, whether economic or otherwise, that induce States to adopt one policy or another in the international sphere of their activity. (Jaeger.)

HOME ECONOMICS

Professors Mount, McFarland; Associate Professor Welsh; Assistant Professor Murphy; Mrs. Westney, Miss Hartmann.

Textiles and Clothing

H. E. 11 f. *Textiles and Clothing* (3)—Two recitations; one laboratory.

History of textile fibers; standardization and identification of textile fibers and materials. (Westney.)

H. E. 12 s. *Textiles and Clothing* (3)—One recitation; two laboratories.

Construction and care of clothing; clothing budget. (Westney.)

For Advanced Undergraduates

H. E. 111 f. *Advanced Clothing* (4)—One recitation; three laboratories. Prerequisites, H. E. 11 f and H. E. 12 s, or their equivalent.

The modeling and draping of dresses, emphasizing the relationship of line, form, color, and texture, to the individual person. (Westney.)

H. E. 112 s. *Special Clothing Problems* (3)—One recitation; two laboratories. Prerequisite, H. E. 111 f.

Each student selects an individual clothing study. (Westney.)

H. E. 113 f. *Problems and Practice in Textiles or Clothing* (5)—Prerequisite, H. E. 111 f.

Opportunity for experience and study in laboratories, or museums. (McFarland.)

H. E. 114 f or s. *Advanced Textiles* (3)—Two recitations; one laboratory.

Advanced study of textiles; historic textiles; economic phases of the textile industry which affect the consumer.

Foods and Nutrition

H. E. 31 y. *Elementary Foods* (6)—One recitation; two laboratories. Chem. 1 y to be taken concurrently.

Principles of cookery; composition of foods; planning and serving of meals. (Welsh and Assistants.)

For Advanced Undergraduates

H. E. 131 f. *Nutrition* (3)—Three recitations. Prerequites, H. E. 31 y and Chem. 12 f.

Nutritive value, digestion and assimilation of foods. (Welsh.)

H. E. 132 s. *Nutrition* (3)—Two recitations; one laboratory. Prerequisite, H. E. 131 f.

Selection of food to promote health; special diets. (Welsh.)

H. E. 133 f. *Demonstrations* (2)—Two laboratories.

Practice in demonstrations. (Welsh.)

H. E. 134 s. *Advanced Foods* (3)—One recitation; two laboratories. Prerequisite, H. E. 31 y.

Advanced study of manipulation of food materials. (Welsh.)

H. E. 135 f. *Problems and Practice in Foods* (5).

Experimental foods. (Welsh.)

H. E. 136 s. *Child Nutrition* (2)—One recitation; one laboratory.

Lectures, discussions, and field trips relating to the principles of child nutrition.

For Graduates

H. E. 201 f or s. *Seminar in Nutrition* (3).

Oral and written reports on assigned readings in the current literature of Nutrition. Preparation and presentation of reports on special topics.

H. E. 202 f or s. *Research.* Credit to be determined by amount and quality of work done.

With the approval of the head of the department, the student may pursue an original investigation in some phase of foods. The result may form the basis of a thesis for an advanced degree.

H. E. 203 f or s. *Advanced Experimental Foods* (3)—One recitation; two laboratories. Experimental work with foods.

Art

H. E. 21 f. *Principles of Design* (3)—One recitation; two laboratories.

Space division and space relation; color theory and harmony; original designs in which lines, notan, and color are used to produce fine harmony. (McFarland.)

H. E. 22 s. *Still Life* (1)—One laboratory. Prerequisite, H. E. 21 f.

Work in charcoal and color. (McFarland.)

H. E. 23 s. *Figure Sketching* (1)—One laboratory. Alternates with Still Life (H. E. 22 s.) (McFarland.)

H. E. 24 s. *Costume Design* (3)—One recitation; two laboratories. Prerequisite, H. E. 21 f.

The application of color, harmony, and proportion to costume. (McFarland.)

For Advanced Undergraduates

H. E. 121 s. *Interior Decoration* (3)—Two recitations; one laboratory. Prerequisite, H. E. 21 f.

History of Architecture and period furniture; application of principles of color and proportion to home decoration. (Murphy.)

H. E. 122 s. *Applied Art* (1)—One laboratory.

Application of the principles of design and color to practical problems. (Murphy.)

H. E. 123 s. *Advanced Design* (3)—Three laboratories. Prerequisites, H. E. 24 s and 21 f.

Advanced study in design, with application to particular problems. (McFarland.)

H. E. 124 f. *History of Art* (3)—Three recitations.

An introduction to the history of art, with emphasis upon the development of sculpture, painting, and architecture, from the earliest ages to the present. (McFarland.)

H. E. 125 s. *History of Art* (3)—Three recitations.

Continuation of 124 f. (McFarland.)

Home and Institutional Management

H. E. 141 f. *Management of the Home* (3)—Three recitations.

History of the family and of the home; the house, its structure and furnishings; purchasing of all household commodities.

H. E. 142 s. *Management of the Home* (3)—Three recitations.

Management of the home and family; relation of the members of the family to each other and to the community.

H. E. 143 f. *Practice in Management of the Home* (5).

Experience in operating and managing a household composed of a member of the faculty and a small group of students for approximately one-third of a semester. (Murphy.)

H. E. 144 y. *Institutional Management* (6)—Three recitations.

The organization and management of insitutional dining halls, dormitories, and laundries; and of commercial cafeterias, tea-rooms, and restaurants. (Hartmann.)

H. E. 145 f. *Practice in Institutional Management* (5) — Prerequisite, H. E. 144 y.

Practice work in the University Dining Hall, in a tea room, or in a cafeteria. (Hartmann.)

H. E. 146 s. *Advanced Institutional Management* (3)—Prerequisite, H. E. 144 y. One recitation weekly and individual conferences with the instructors.

Special problems in Institutional Management. (Mount and Hartmann.)

Home Economics Extension

H. E. 151 f. *Field Practice in Home Economics Extension* (5)—Given under the direction of Miss Venia Kellar, State Home Demonstration Agent.

Home Economics Seminar

H. E. 161 s. *Seminar* (3)—Three recitations.

Book reviews, and abstracts from scientific papers and bulletins relating to Home Economics, together with criticisms and discussions of the work presented. (Staff.)

HOME ECONOMICS EDUCATION

PROFESSOR MCNAUGHTON; MISS KIRK.

H. E. ED. 5 s. *Technic of Teaching* (3)—Two lectures; one laboratory. Required of juniors in Home Economics Education. Prerequisite, Ed. 4 f.

The nature of educational objectives; construction of units; observations and critiques; survey of teaching methods; class management; participation teaching. (McNaughton.)

For Advanced Undergraduates and Graduates

H. E. ED. 101 s. *Child Psychology* (3)—Three lectures. Open to juniors.

Study of the nervous system; the glandular system; development of sensations; habit formation; emotional controls. (McNaughton.)

H. E. ED. 102 f. *Child Study* (5).

The study of child development in relation to the physical, mental, and educational phases of growth; study of textbooks and magazines; adaptation of material to teaching of child care in high school. (McNaughton.)

H. E. ED. 103 f. *Teaching Secondary Vocational Home Economics*: Methods and Practice (5). Prerequisite, H. E. Ed. 5s.

Objectives of vocational home economics; the Smith-Hughes law and its administration; a survey of the needs of the high school girl; adaptation of the state course of study to the needs of the community; methods of instruction; use of the home project; use of illustrative material; improvement of home economics library; study of equipment; outline units of instruction; observation; teaching; conferences and critiques.

(McNaughton and Kirk.)

H. E. ED. 105 f. *Special Problems in Child Study* (5)—Open to seniors. Prerequisite, H. E. Ed. 102 f.

A course for students wishing advanced work in Child Study; special work at the National Child Research Center. (McNaughton.)

H. E. ED. 106 s. *Problems in Teaching Home Economics* (1).

Problems in classroom instruction; planning for laboratory work; analysis of textbooks; evaluation of illustrative material. (McNaughton.)

For Graduates

H. E. ED. 200 f or s. *Seminar in Home Economics Education* (3-5).

Principles of progressive education as applied to the teaching of home economics; study of early educational experiments as compared with advanced schools of the present day; the adaptation of home economics to present needs. (McNaughton.)

HORTICULTURE

PROFESSORS BEAUMONT, SCHRADER, THURSTON; LECTURERS AUCHTER,

BOSWELL; ASSOCIATE PROFESSOR WENTWORTH; ASSISTANT PROFESSOR CORDNER; MR. FRAZIER, MR. SPROAT, MR. BAILEY.

A. Pomology

HORT. 1 f. *Elementary Pomology* (3)—Three lectures.

A general course in pomology. The proper location and site for an orchard; varieties, planting plans, pollination requirements, inter-crops, spraying, cultural methods, fertilizing methods, thinning, picking, packing, and marketing are given consideration. These subjects are discussed for apples, peaches, pears, plums, cherries, and quinces. The principles of plant propagation as applied to pomology are also discussed.

HORT. 2 f. *Systematic Pomology* (3)—Two lectures; one laboratory.

The history, botany, and classification of fruits and their adaptation to Maryland conditions. Exercises are given in describing and identifying the leading commercial varieties of fruits. Students are required to help set up the fruit show each year. Given in alternate years. (Not offered 1933-1934.)

HORT. 3 f. *Advanced Practical Pomology* (1)—Senior year. Prerequisite, Hort 1 f.

A trip occupying one week's time will be made through the principal fruit regions of eastern West Virginia, Maryland, and Pennsylvania. A visit to the fruit markets of several large cities will be made. The cost of this trip should not exceed thirty dollars to each student. Each student will be required to hand in a detailed report covering the trip. The time for taking this trip will be arranged yearly with each class.

HORT. 4 s. *Small Fruit Culture* (2)—Two lectures. Given in alternate years. (Not offered in 1933-1934.)

The care and management of small fruit plantations. Varieties and their adaptation to Maryland soils and climate, packing, marketing, and a study of the experimental plots and varieties on the Station grounds. The following fruits are discussed: the grape, strawberry, blackberry, blackcap raspberry, red raspberry, currant, gooseberry, dewberry, and loganberry.

HORT. 5 f. *Fruit and Vegetable Judging* (2)—Two laboratories.

A course designed to train students for fruit-judging teams and practical judging. Students are required to know at least one hundred varieties of fruit, and are given practice in judging single plates, largest and best collections, boxes, barrels, and commercial exhibits of fruits and vegetables. Students are required to help set up the college horticultural show each year.

HORT. 6 f. *Advanced Fruit Judging* (1)—One laboratory.

HORT 7 y. *Practical Pomology Laboratory* (4)—Two laboratories. Seasonal practical experience in carrying out orchard and small fruit opera-

tions, including spraying, harvesting, spray residue removal, grading, packing, mouse and borer control, pruning, planting, pollination, etc.

The course will include trips to the principal horticultural regions of Maryland and of neighboring states, and to nurseries or other points of interest.

B. Vegetable Crops

HORT. 11 s. *Principles of Vegetable Culture* (3)—Two lectures; one laboratory.

A study of fundamental principles underlying all garden practices. Each student is given a small garden to plant, cultivate, spray, fertilize, harvest, etc.

HORT. 12 f. *Truck Crop Production* (3)—Three lectures. Prerequisite, Hort. 11 s.

A study of methods used in commercial vegetable production. Each crop is discussed in detail. Trips are made to large commercial gardens, various markets, and other places of interest.

HORT. 13 s. *Vegetable Forcing* (3)—Two lectures; one laboratory. Prerequisite, Hort. 11 s.

All vegetables used for forcing are considered. Laboratory work in sterilization and preparation of soils, cultivation, regulation of temperature and humidity, watering, training, pruning, pollination, harvesting, and packing. Given in alternate years. (Not offered in 1933-1934.)

C. Floriculture

HORT. 21 f. *General Floriculture* (2)—One lecture; one laboratory.

The management of greenhouses; the production and marketing of florists' crops; retail methods; plants for house and garden. Given in alternate years. (Not offered in 1934-1935.)

HORT. 22 y. *Greenhouse Management* (6)—Two lectures; one laboratory.

A consideration of the methods employed in the management of greenhouses, including the operations of potting, watering, ventilating, fumigation, and methods of propagation. Given in alternate years. (Not offered in 1933-1934.)

HORT. 23 y. *Floricultural Practice* (4)—Two laboratories.

Practical experience in the various greenhouse operations of the fall, winter, and spring seasons.

HORT. 24 s. *Greenhouse Construction* (2)—One lecture; one laboratory.

The various types of houses; their location, arrangement, construction, and cost; principles and methods of heating; preparation of plans and specifications for commercial and private ranges. Given in alternate years. (Not offered in 1933-1934.)

HORT. 25 y. *Commercial Floriculture* (6)—Two lectures; one laboratory. Prerequisite, Hort. 22 y.

Cultural methods of florists' bench crops and potted plants, the marketing of the cut flowers, the retail store, a study of floral decoration. Given in alternate years. (Not offered in 1934-1935.)

HORT. 26 f. *Garden Flowers* (3)—Two lectures; one laboratory.

Plants for garden use; the various species of annuals, herbaceous perennials, bulbs, bedding plants and roses and their cultural requirements. Given in alternate years. (Not offered in 1933-1934.)

HORT. 27 s. *Floricultural Trip* (1)—Prerequisite, Hort. 22 y.

A trip occupying one week's time will be made through the principal floricultural sections, including Philadelphia and New York, visiting greenhouse establishments, wholesale markets, retail stores, nurseries, etc. The cost of this trip should not exceed thirty dollars to each student. Each student will be required to hand in a detailed report covering the trip. The time for taking this trip will be arranged yearly with each class.

D. Landscape Gardening

HORT. 31 s. *General Landscape Gardening* (2)—Two lectures.

The theory and general principles of landscape gardening and their application to private and public areas. Special consideration is given to the improvement and beautification of the home grounds, farmsteads, and small suburban properties. Adapted to students not intending to specialize in landscape, but who wish some theoretical and practical knowledge of the subject. Given in alternate years. (Not offered in 1934-1935.)

HORT. 32 f. *Elements of Landscape Design* (3)—One lecture; two laboratories. Prerequisite, Hort. 31 s.

A consideration of the principles of landscape design; surveys, mapping, and field work. Given in alternate years. (Not offered in 1933-1934.)

HORT. 33 s. *Landscape Design* (3)—Three labortories. Prerequisite, Hort 32 f.

The design of private grounds and gardens and of architectural details used in landscape; planting plans; analytical study of plans of practicing landscape architects; field observation of landscape developments. Given in alternate years. (Not offered in 1933-1934.)

HORT. 34 f. *Landscape Design* (3)—Three laboratories. Prerequisite, Hort 33 s.

Continuation of course as outlined above. Given in alternate years. (Not offered in 1934-1935.)

HORT. 35 f. *History of Landscape Gardening* (1)—One lecture. Prerequisite, Hort. 31 s.

Evolution and development of landscape gardening; the different styles

and a particular consideration of Italian, English, and American gardens. Given in alternate years. (Not offered in 1933-1934.)

HORT. 36 s. *Landscape Construction and Maintenance* (1)—One lecture or laboratory.

Methods of construction and planting; estimating; park and estate maintenance. Given in alternate years. (Not offered in 1933-1934.)

HORT. 37 s. *Civic Art* (2)—One lecture; one laboratory.

Principles of city planning and their application to village and rural improvement, including problems in design of civic center, parks, school grounds, and other public and semi-public areas. Given in alternate years. (Not offered in 1934-1935.)

E. General Horticulture Courses

HORT. 41 s. *Horticultural Breeding and Pollination Methods* (1)—One laboratory. Senior year. Prerequisites, Gen. 101 and Plt. Phys. 1 f.

Practice in plant breeding, including pollination, hybridization, selection, note-taking, and the general application of the theories of heredity and selection to practice are taken up in this course.

HORT. 42 y. *Horticultural Research and Thesis* (4-6.)

An advanced student in any of the four divisions of horticulture may select a special problem for investigation. This may be either the summarizing of all the available knowledge on a particular problem or the investigation of some new problem. Where original investigation is carried on, the student should in most cases start the work during the junior year. The results of the research are to be presented in the form of a thesis and filed in the horticultural library.

HORT. 43 y. *Horticultural Seminar* (2).

In this course papers are read by members of the class upon subjects pertaining to their research or thesis work or upon special problems assigned them. Discussions of special topics are given from time to time by members of the departmental staff.

For Advanced Undergraduates and Graduates

HORT. 101 f. *Commercial Fruit Growing* (3)—Two lectures; one laboratory. Prerequisite, Hort. 1 f.

The proper management of commercial orchards in Maryland. Advanced work is taken up on the subject of culture, fertilization, pollination, pruning, thinning, spraying, spray removal, picking, packing, marketing, and storage of fruits. Given in alternate years. (Not offered in 1934-1935.)

HORT. 102 f. *Economic Fruits of the World* (2)—Two lectures. Prerequisites, Hort. 1 f and Hort. 101 f.

A study is made of the botanical, ecological, and physiological characteristics of all species of fruit-bearing plants of economic importance, such as

the date, pineapple, fig, olive, banana, nut-bearing trees, citrus fruits, and newly introduced fruits, with special reference to their cultural requirments in certain parts of the United States and the insular possessions. All fruits are discussed in this course which have not been discussed in a previous course. Given in alternate years. (Not offered in 1933-1934.)

HORT. 103 f. *Tuber and Root Crops* (2)—One lecture; one laboratory. Prerequisites, Hort. 11 s and 12 f.

A study of white potatoes and sweet potatoes, considering seed, varieties, propagation, soils, fertilizers, planting, cultivation, spraying, harvesting, storing, and marketing. Given in alternate years.

HORT. 104 s. *Advanced Truck Crop Production* (2)—Prerequisites, Hort. 11 s, 12 f, and 13 s.

A trip of one week is made to the commercial trucking section of Maryland, Delaware, New Jersey, and Pennsylvania. A study of the markets in several large cities is included in this trip. Each student is required to hand in a detailed report of this trip. The cost of such a trip should not exceed thirty dollars per student. The time will be arranged each year with each class.

HORT. 105 f. *Systematic Olericulture* (3)—Two lectures; one laboratory. Prerequisites, Hort. 11 s and 103 f.

A study of the classification and nomenclature of vegetables. Descriptions of varieties and adaptation of varieties to different environmental conditions. Given in alternate years.

HORT. 106 y. *Plant Materials* (5)—One lecture; one or two laboratories.

A field and laboratory study of trees, shrubs, and vines used in ornamental planting. Given in alternate years. (Not offered in 1934-1935.)

For Graduates

HORT. 201 y. *Experimental Pomology* (6)—Three lectures.

A systematic study of the sources of knowledge and opinion as to practice in pomology; methods and difficulties in experimental work in pomology and results of experiments that have been or are being conducted in all experiment stations in this and other countries.

HORT. 202 y. *Experimental Olericulture* (6)—Three lectures.

A systematic study of the sources of knowledge and opinion as to practice in vegetable growing; methods and difficulties in experimental work in vegetable production and results of experiments that have been or are being conducted in all experiment stations in this and other countries.

HORT. 203 s. *Experimental Floriculture* (2)—Two lectures.

A systematic study of the sources of knowledge and opinion as to practice in floriculture are discussed in this course. The results of all experimental work in floriculture which have been or are being conducted will be thoroughly discussed.

HORT. 204 s. *Methods of Research* (2)—One lecture; one laboratory.

Special drill will be given in the making of briefs and outlines of research problems, in methods of procedure in conducting investigational work, and in the preparation of bulletins and reports. A study of the origin, development, and growth of horticultural research is taken up. A study of the research problems being conducted by the Department of Horticulture will be made, and students will be required to take notes on some of the experimental work in the field and become familiar with the manner of filing and cataloging all experimental work.

HORT. 205 y. *Advanced Horticultural Research and Thesis* (4, 6, or 8). Students will be required to select problems for original research in pomology, vegetable gardening, floriculture, or landscape gardening. These problems will be continued until completed, and final results are to be published in the form of theses.

HORT. 206 y. *Advanced Horticultural Seminar* (2).

This course will be required of all graduate students. Students will be required to give reports either on special topics assigned them, or on the progress of their work being done in courses. Members of the departmental staff will report special research from time to time.

HORT. 207 y. *National and International Horticultural Problems* (2).

Discussions of factors affecting the profitable production of horticultural crops in this and other countries; the competition between different horticultural crops in the United States and between American and foreign crops, and factors influencing the development of new horticultural industries in America. The applications of various fundamental sciences to the solutions of regional and national problems in horticultural crop production.

Requirements of Graduate Students in Horticulture

Pomology—Graduate students specializing in Pomology who are planning to take advanced degrees will be required to take or offer the equivalent of the following courses: Hort. 1 f, 2 f, 101 f, 102 f, 201 y, 204 s, 205 y, 206 y, and 207 y; Plant Biochemistry (Plt. Phys. 201 s); Plant Microchemistry (Plt. Phys. 203 s); Plant Biophysics (Plt. Phys. 202 f); Organic Chemistry (Chem. 8 y); Plant Anatomy (Bot. 101 f), and Mycology (Bot. 102 f).

Olericulture—Graduate students specializing in vegetable gardening who are planning to take an advanced degree will be required to take or offer the equivalent of the following courses: Hort. 12 f, 13 s, 103 f, 105 f, 202 y, 204 s, 205 y, and 206 y; Plant Microchemistry (Plt. Phys. 203 s); Plant Biochemistry (Plt. Phys. 201 s); Plant Biophysics (Plt. Phys. 202 f); Organic Chemistry (Chem. 8 y); Plant Anatomy (Bot. 101 f), and Mycology (Bot. 102 f).

Floriculture—Graduate students specializing in floriculture who are planning to take an advanced degree will be required to take or offer the equivalent of the following courses: Hort. 22 y, 23 y, 24 s, 25 y, 26 f, 203 s, 204 s, 205 y, and 206 y; Plant Biophysics (Plt. Phys. 202 f); Plant Biochemistry (Plt. Phys. 201 s); Botany 103 f or s, Organic Chemistry (Chem. 8 y), Botany 101 f and 102 f, and Plant Physiology 101 s, and 203 s.

Landscape Gardening—Graduate students specializing in landscape gardening who are planning to take an advanced degree will be required to take or offer the equivalent of the following courses: Hort. 32 f, 33 s, 35 f, 105 f, 204 s, and 206 y; Bot. 103 f or s; Dr. 1 y and 2 y; Plane Surveying (Surv. 2 y), and Plant Ecology (Plt. Phys. 101 s).

Additional Requirements—In addition to the above required courses, all graduate students in horticulture are advised to take physical and colloidal chemistry.

Unless graduate students in Horticulture have had certain courses in entomology, plant pathology, genetics, and biometry, certain of these courses will be required.

Note: For courses in Biochemistry and Biophysics, see Plant Physiology, under Botany.

LATIN

PROFESSOR SPENCE.

LAT. 1 y. *Elementary Latin* (8)—Four lectures.

This course is offered to cover a substantial and accurate course in grammar and syntax, with translation of simple prose. It is substantially the equivalent of one entrance unit in Latin.

LAT. 2 y. (8)—Four lectures. Prerequisite, Lat. 1 y or one entrance unit in Latin.

Texts will be selected from Virgil, with drill on prosody, and Cicero.

LIBRARY SCIENCE

MISS BARNES, MR. FOGG.

L. S. 1 f or s. *Library Methods* (1)—Freshman year. Required of students registered in the College of Arts and Sciences. Elective for others.

This course is intended to help students use the library with greater facility. Instruction is given by practical work with the various catalogs, indexes, and reference books. This course considers the general classification of the library according to the Dewey system. Representative works of each division are studied in combination with the use of the library catalogue. Attention is given to periodical literature, particularly that indexed in the Reader's Guide and in other periodical indexes; and to various much-used reference books which the student will find helpful throughout the college course.

MATHEMATICS

PROFESSORS T. H. TALIAFERRO, GWINNER; ASSOCIATE PROFESSOR DANTZIG;

ASSISTANT PROFESSORS SPANN, R. C. YATES; MR. ALRICH, MR. STINSON, MR. BURGER, MR. J. YATES.

MATH. 1 f. *Algebra* (3)—Three lectures. Required of Pre-medical, Pre-dental, Business Administration, and certain Chemistry students, and alternative for others in the College of Arts and Sciences. Elective for other students. Prerequisite, Algebra to Quadratics.

This course includes the study of quadratics, simultaneous quadratic equations, graphs, progressions, elementary theory of equations, binomial theorem, permutations, combinations, etc.

MATH. 2 s. *Plane Trigonometry* (3)—Three lectures. Required of Pre-medical, Pre-dental, Business Administration, and certain Chemistry students, and alternative for others in the College of Arts and Sciences. Elective for other students. Prerequisites, Math. 1 f and Plane Geometry.

A study of the trigonometric functions and the deduction of formulas with their application to the solution of plane triangles and trigonometric equations.

MATH. 3 f. *Advanced Algebra; Trigonometry* (5)—Five lectures. Required of freshmen in the College of Engineering and in Industrial Chemistry. Elective for other students. Prerequisites, Algebra completed and Solid Geometry.

a. Advanced Algebra includes a rapid review of algebra required for entrance, elementary theory of equations, binomial theorem, permutations, combinations, and other selected topics.

b. Trigonometry includes trigonometric functions, the deduction of formulas and their application to the solution of plane triangles, trigonometric equations, spherical triangles, etc.

This course will be repeated during the second semester.

MATH. 4 s. *Analytic Geometry* (5)—Five lectures. Required of students in the College of Engineering and in Industrial Chemistry. Elective for other students. Prerequisite, Math. 3 f.

This course includes a study of the curve and equation, the straight line, the conic sections, empirical equations, transcendental curves, the plane and the straight line in space, and the quadric surfaces.

An opportunity is also afforded to take this course during the summer.

MATH. 5 y. *Calculus and Plane Analytic Geometry* (6)—Three lectures. Required of students in Chemistry other than Industrial Chemistry. Elective for other students. Prerequisites, Math. 1 f and 2 s.

Emphasis will be placed on calculus, including the study of the methods of differentiation and integration and the application of these methods in determining maxima and minima, areas, length of curves, etc., in the plane.

Plane analytic geometry will, wherever possible, be attacked from the viewpoint of the calculus, and includes the study of the loci of equations in

two variables, the straight line, conic sections and transcendental curves, and the development of empirical equations from graphs.

MATH. 6 y. *Calculus; Elementary Differential Equations* (10)—Five lectures. Required of sophomores in the College of Engineering and in Industrial Chemistry. Elective for other students. Prerequisite, Math. 4 s.

Calculus is studied throughout the year. In the second semester several weeks are devoted to the study of elementary differential equations.

Calculus includes a discussion of the methods of differentiation and integration and the application of these methods in determining maxima and minima, areas, length of curves, etc., in the plane; and the determination of areas, volumes, etc., in space.

The first semester of this course will be repeated in the second semester, and an opportunity will be afforded to take the second semester of this course during the summer.

MATH. 7 s. *Solid Geometry* (2)—Two lectures. Prerequisite, Plane Geometry completed. Open only to freshmen. Elective. College credit given only to students in the College of Education. Other students may take course without credit.

The course covers the line, the plane, polyhedrons, cylinders, cones, and the sphere.

For Advanced Undergraduates and Graduates

MATH. 101 f. *The Mathematical Theory of Investment* (3)—Three lectures. Prerequisites, Math. 1 f and 2 s. Open only to juniors and seniors. Required of students in Business Administration.

The application of mathematics to financial transactions; compound interest and discount, construction and use of interest tables; sinking funds, annuities, depreciation, valuation and amortization of securities, building and loan associations, life insurance, etc. (Spann.)

MATH. 102 s. *Elements of Statistics* (3)—Three lectures. A continuation of Math. 101 f. Prerequisites, Math. 1 f and 2 s. Open only to juniors and seniors. Required of students in Business Administration.

A study of the fundamental principles used in statistical investigation. See Genetics 114 s. (Kemp.)

MATH. 103 f. *Differential Equations* (3)—Three lectures. Elective. Prerequisite, Math. 6 y, or Math. 5 y and consent of instructor.

Integration of ordinary differential equations. Singular solutions. Integration by Series. Applications to Geometry, Physics, etc. (Yates and Alrich.)

MATH. 104 s. *Theoretical Mechanics.* (3)—Three lectures. Elective. Prerequisite, Math. 6 y, or Math. 5 y and consent of instructor.

Elementary Vector Analysis. Statics. Kinematics. The equations of Motion. Applications. (Alrich.)

MATH. 105 f. *Advanced Topics in Algebra* (3)—Three lectures. Elective.

Theory of Equations. Galois Groups. Matrices and Determinants. Linear Substitutions. Quadratic Forms. (Not given in 1933-1934.)

(Dantzig.)

MATH. 106 s. *Advanced Topics in Geometry* (3)—Three lectures. Elective.

The Conic Sections. Homogeneous Coordinates. The Quadric Surfaces. Collineations. Principles of Projective Geometry. (Not given in 1933-1934.)

(Dantzig.)

MATH. 107 f. *Elementary Theory of Functions* (3)—Three lectures. Elective.

Functions of a Real Variable. Polynomials and Rational Functions. Transcendental Functions. Principles of Graphing and of Approximation.

(Dantzig.)

MATH. 108 s. *Vector Analysis* (3)—Three lectures. Elective.

Vector Algebra. Applications to geometry and physics. Vector differentiation and integration. Applications to mathematical physics.

(Dantzig.)

MATH. 109 f. *Advanced Algebra and Theory of Equations* (2)—Two lectures. Elective.

This course is designed to prepare the student for advanced work. A study of the number system is made with special emphasis on the complex field. Further topics include the solution of equations, symmetric functions, fractional rational functions, partial fractions, series, determinants.

(Taliaferro.)

MATH. 110 s. *Theory of Numbers.* (2)—Two lectures. Elective.

Systems of numeration. Factorization theorems and prime numbers. Criteria of primality. Linear congruences and Diophantine equations. Higher congruences. The theorem of Fermat. Quadratic residues.

(Taliaferro.)

For Graduates

MATH. 201 y. *Seminar and Thesis.* (4-10) Credit hours will be given in accordance with work done. (Dantzig.)

MATH. 202 f. *Fundamental Concepts of Mathematics.* (2)—Two lectures. Elective.

Foundations of Arithmetic, Algebra, Analysis, and Geometry. A critical study of such concepts as Number, Limit, Continuity, and the Infinite; the Axioms of Geometry; Measurement; Spatial Forms and Pan-Geometry; the concepts of Space and Time; and the Relativity Theory. (Not given in 1933-1934.)

(Dantzig.)

MATH. 203 s. *Differential Geometry.* (2)—Two lectures. Elective.

Plane Curves: parametric representation, general coördinates, orthogonal networks. Skew Curves: curvature and torsion; applications to Kinematics. Theory of Surfaces: lines of curvature, asymptotic lines, geodetics. Gaussian geometry on a Surface. Special surfaces: developables, applicable surfaces, surfaces of Revolution. (Not given in 1933-1934.) (Dantzig.)

MATH. 204 f. *History of Mathematics* (2)—Two lectures. Elective.

History of individual mathematical disciplines; Arithmetic and Algebra; Geometry and Trigonometry; the Calculus and Theory of Functions. The Nature of Mathematical Discovery and the influence of the great discoveries of the past upon the subsequent course of the science. A brief survey of the most salient modern discoveries. (Dantzig.)

MATH. 205 s. *Theory of Transformations.* (2)—Two lectures. Elective.

The Transformations of Classical Geometry. Infinite Groups. Infinitesimal Conformal Transformations. Co-areal Transformations. Cremona Transformations. Various Applications of the Theory. (Dantzig.)

MATH. 206 f. *Advanced Calculus,* (2)—Two lectures. Elective.

This course presupposes a knowledge of elementary calculus and the elements of differential equations. A study is made of power series, hyperbolic functions, Taylor's series, partial differentiation, Jacobians, curvilinear coördinates, differentiation and integration of an integral form, certain definite integrals, Gamma and Beta functions, Green's and Stokes' theorems, review of differential equations with particular attention to Legendre's, Bessel's, and Laplace's equations. (Not given in 1933-1934.) (Yates.)

MATH. 207 s. *Theory of Functions of a Complex Variable.* (2)—Two lectures. Elective.

This course begins with a study of series and elementary functions, continuing with a detailed examination of rational functions and transformations. Particular attention is paid here to inversive geometry. General analytic functions are then considered under the following topics: differentiation and integration, singular points, residues, conformal representation, Taylor's series, Laurent's series, Riemann sheets, etc. (Not given in 1933-1934.) (Yates.)

MATH. 208 f. *Differential Equations of Physics.* (2)—Two lectures. Elective.

A short review of vector calculus and elementary differential equations is made at the beginning of the course. Topics to be considered include the theory of vibrations, the wave equation, potential theory, boundary value problems, spherical harmonics, Bessel functions, and integral equations.

(Yates.)

MATH. 209 s. *Fourier Series and Spherical Harmonics,* (2)—Two lectures. Elective.

This is designed as a continuation of Math. 208 f. The theory of infinite series is studied, with attention to continuity, convergence, summability, differentiation an integration, etc., in order to form a good foundation for the consideration of Fourier series and integrals, with applications to heat and electricity. (Yates.)

MILITARY SCIENCE AND TACTICS

PROFESSOR OF MILITARY SCIENCE AND TACTICS, MAJOR A. C. GILLEM, JR., U. S. A.; ASSISTANT PROFESSORS CAPTAIN E. L. UPSON, 1ST LIEUTENANTS W. P. SHEPARD AND J. W. HARMONY; WARRANT OFFICER WILLIAM H. MCMANUS, AND STAFF SERGEANT EARL HENDRICKS.

*BASIC COURSE

Freshman Year—1 lecture; 2 drill periods.

M. I. 1 y. *Basic R. O. T. C.* (2).

The following subjects are covered:

First Semester

National Defense Act, including basic organization and the R. O. T. C.; Military Courtesy, Command and Leadership, Physical Drill, Military Hygiene and First Aid.

Second Semester

Physical Drill, Command and Leadership, Marksmanship, Map Reading.

Sophomore Year—1 lecture; 2 drill periods.

M. I. 2 y. *Basic R. O. T. C.* (4).

The following subjects are covered:

First Semester

Scouting and Patrolling, Automatic Rifle, Military History, Leadership.

Second Semester

Military History, Musketry, Combat Principles of the Squad and Section, Leadership.

** ADVANCED COURSE

Junior Year—3 lectures; 2 drill periods.

M. I. 101 y. *Advanced R. O. T. C.* (6).

The following subjects are covered:

**Required of qualified students.*

***Eective for qualified students.*

First Semester

Aerial Photograph Reading, Machine Guns, Howitzer Weapons, Combat Principles, Leadership.

Second Semester

Combat Principles, Pistol, Review of Rifle Marksmanship, Leadership.

Senior Year—3 lectures; 2 drill periods.

M. I. 102 y. *Advanced R. O. T. C.* (6).

The following subjects are covered:

First Semester

Combat Principles, Command and Leadership, Weapons (Tanks), Chemical Agents and Uses, Mechanization.

Second Semester

Company Administration, Military History and Policy, Military Law, Officers' Reserve Corps Regulations.

MODERN LANGUAGES

PROFESSOR ZUCKER; ASSOCIATE PROFESSOR KRAMER; ASSISTANT PROFESSOR FALLS; MISS WILCOX, MR. ROESSING, MR. SCHWEIZER, MISS HERRING, MISS REED.

A. French

FRENCH 1 y. *Elementary French* (6)—Three lectures. No credit given unless both semesters are completed. Students who offer two units in French for entrance, but whose preparation is not adequate for second-year French, receive half credit for this course.

Elements of grammar, composition, pronunciation, and translation.

FRENCH 2 y. *Second-Year French* (6)—Three lectures. Prerequisite, French 1 y or equivalent.

Study of grammar continued; composition, conversation, translation. Texts selected from modern prose.

FRENCH. 3 y. *Pronunciation and Conversation* (2)—One lecture. Prerequisite, French 1 y.

An elementary course stressing drill in French sounds and practice in simple current phrases.

FRENCH 4 y. *The Development of the French Novel* (6)—Three lectures, and reports.

Introductory study of the history and growth of the novel in French literature; of the lives, work, and influence of various novelists. (Not given in 1933-1934.)

FRENCH 5 y. *The Development of the French Drama* (6)—Three lectures, and reports.

Introductory study of the French drama of the seventeenth, eighteenth, and nineteenth centuries. Translation and collateral reading.

FRENCH 8 f. *French Phonetics* (2)—Two lectures. Prerequisite, French 1 y.

FRENCH 9 s. *French Grammar and Composition* (2)—Two lectures. Prerequisite, French 2 y.

(French 8 f and 9 s are required of students preparing to teach French.)

FRENCH 10 y. *Introduction to French Literature* (6)—Three lectures. Prerequisite, French 2 y or equivalent.

An elementary survey introducing the student to the chief authors and movements in French literature.

For Advanced Undergraduates and Graduates

A more intensive survey of French literature is offered by means of rotating courses roughly divided by centuries.

FRENCH 101 y. *History of French Literature in the 16th Century* (4)—Two lectures. (Not given 1933-1934.)

FRENCH 102 y. *History of French Literature in the 17th Century* (4)—Two lectures. (Not given 1933-1934.)

FRENCH 103 y. *History of French Literature in the 18th Century* (4)—Two lectures. (Falls.)

FRENCH 104 y. *History of French Literature in the 19th Century* (4)—Two lectures. (Wilcox.)

FRENCH 110 y. *Advanced Composition* (4)—Two lectures. Open only to students whose qualifications prove satisfactory to the instructor.

An attempt to introduce students to the genius of the French language. (Falls.)

For Graduates

FRENCH 201 y. *Research and Thesis.* Credits determined by work accomplished.

FRENCH 202 y. *Diderot and the Encyclopaedists.* (4)—Two lectures. (Falls.)

Attention is also called to Comparative Literature 105 y, *Romanticism in France, Germany, and England,* and to Modern Language 202 y, *Seminar.*

B. German

GERMAN 1 y. *Elementary German* (6)—Three lectures. No credit given unless both semesters are completed. Students who offer two units in German for entrance, but whose preparation is not adequate for second-year German, receive half credit for this course.

Elements of grammar, composition, pronunciation, and translation.

GERMAN 2 y. *Second-Year German* (6)—Three lectures. Prerequisite, German 1 y or equivalent.

Reading of narrative and technical prose, grammar review, oral and written practice.

GERMAN 3 y. *Pronunciation and Conversation* (2)—One lecture. Prerequisite, German 1 y.

An elementary course stressing drill in German sounds and practice in simple current phrases.

GERMAN 4 f. *Advanced German* (3)—Three lectures. Prerequisite, German 2 y or equivalent.

Rapid reading of novels and short stories from recent German literature.

GERMAN 5 s. *Advanced German* (3)—Three lectures. Continuation of German 4 f.

GERMAN 6 f. *Advanced German* (3)—Three lectures. Prerequisite, German 2 y or equivalent.

Rapid reading of dramas from recent German literature. This course alternates with German 4 f. (Not given 1933-1934.)

GERMAN 7 s. *Advanced German* (3)—Three lectures. Continuation of German 6 f. (Not given 1933-1934.)

GERMAN 10 y. *German Grammar and Composition* (4)—Two lectures.

(This course is required of all students preparing to teach German.)

For Advanced Undergraduates and Graduates

(Prerequisite for courses in this group, German 4 and 5 or equivalent.)

GERMAN 101 f. *German Literature of the Eighteenth Century* (3)—Three lectures.

The earlier classical literature. (Zucker.)

GERMAN 102 s. *German Literature in the Eighteenth Century* (3)—Three lectures.

The later classical literature. (Zucker.)

GERMAN 103 f. *German Literature of the Nineteenth Century* (3)—Three lectures.

Romanticism and Young Germany. (Not given 1933-1934.) (Zucker.)

GERMAN 104 s. *German Literature of the Nineteenth Century* (3)—Three lectures.

The literature of the Empire. (Not given 1933-1934.) (Zucker.)

For Graduates

GERMAN 201 y. *Research and Thesis*—Credits determined by work accomplished. (Zucker.)

GERMAN 202 y. *The Modern German Drama* (3)—Three Lectures.

From Hauptmann to the present day writers. (Not given 1933-1934.) (Zucker.)

GERMAN 203 y. *Schiller* (4)—Two lectures.

Study of the life and works of Schiller with especial reference to the history of his dramas. (Zucker.)

Attention is also called to Comparative Literature 105 y, *Romanticism in France, Germany, and England,* and to Modern Language 202 y, *Seminar.*

C. Spanish

SPANISH 1 y. *Elementary Spanish* (6)—Three lectures. No credit given unless both semesters are completed. Students who offer two units in Spanish for entrance, but whose preparation is not adequate for second-year Spanish, receive half credit for this course.

Elements of grammar, composition, punctuation, and translation.

SPANISH 2 y. *Second-Year Spanish* (6)—Three lectures. Prerequisite, Spanish 1 y or equivalent.

Reading of narrative works and plays; grammar review; oral and written practice.

SPANISH 3 y. *Pronunciation and Conversation* (2)—One lecture. Prerequisite, Spanish 1 y.

An elementary course stressing drill in Spanish sounds and practice in simple current phrases.

(Spanish 2 y or equivalent is prerequisite to all the following courses.)

SPANISH 6 y. *Advanced Conversation and Composition.* (4)—Two lectures.

Introduction to phonetics. Oral and written composition.

(This course is required of all students preparing to teach Spanish.)

SPANISH 9 f. *The Spanish Novel* (3)—Three lectures.

Reading of some of the novels of the Golden Age.

SPANISH 10 s. *The Spanish Novel* (3)—Three lectures.

Reading of modern novels.

SPANISH 11 f. *The Spanish Drama* (3)—Three lectures.

An introduction to the drama of the Golden Age. (Not given 1933-1934.)

SPANISH 12 s. *The Spanish Drama* (3)—Three lectures.

The drama since Calderon. (Not given 1933-1934.)

For Advanced Undergraduates and Graduates

SPANISH 101 f. *Spanish Poetry.* (3)—Three lectures.

The epic; the ballad and popular poetry; early lyrics; poetry of the Golden Age.

SPANISH 102 s. *Spanish Poetry.* (3)—Three lectures.

Poetry of the 18th, 19th, and 20th centuries.

For Graduates

SPANISH 201 f. *The Middle Ages in Spain* (3)—Three lectures.

Introduction to the study of the literature of the period, with some attention to etymology and historical grammar.

SPANISH 202 s. *The Middle Ages in Spain* (3)—Three lectures.

Continuation of Spanish 201 f.

SPANISH 203 y. *Research and Thesis.* Credits determined by work accomplished.

D. Comparative Literature

For Advanced Undergraduates and Graduates

The courses in Comparative Literature are, for the time being, under the direction of the Department of Modern Languages. They may be elected as partially satisfying major and minor requirements in this department. Comparative Literature 101 f, 102 s, 104 s, 105 y, and 107 s may also be counted toward a major or minor in English.

COM. LIT. 101 f. *Introduction to Comparative Literature* (3)—Three lectures.

Survey of the background of European literature through study in English translation of Greek and Latin literature. Special emphasis is laid on the development of the epic, tragedy, comedy, and other typical forms of literary expression. The debt of modern literature to the ancients is discussd and illustrated. (Zucker.)

COM. LIT. 102 s. *Introduction to Comparative Literature* (3)—Three lectures.

Continuation of Com. Lit. 101 f; study of medieval and modern Continental literature. (Zucker.)

COM. LIT. 104 s. *The Modern Ibsen* (2)—Two lectures. Lectures on the life of Ibsen and the European drama in the middle of the Nineteenth Century. Study of Ibsen's social and symbolical plays in Archer's translation. (Not given 1933-1934.) (Zucker.)

COM. LIT. 105 y. *Romanticism in France, Germany, and England* (6)—Three lectures, and reports.

Introduction to the chief authors of the Romantic movement in England, France, and Germany, the latter two groups being read in English translation. Lectures on the chief thought currents and literary movements of the late eighteenth and early nineteenth centuries. First semester: Rosseau to Gautier; Buerger to Heine. Second semester: Byron, Shelley, Keats, and others. The course is conducted by members of both the Modern Language and the English departments. (First semester not given 1933-1934.)
(Wilcox, Zucker, Hale.)

COM. LIT. 106 s. *Life and Works of Goethe* (2)—Two lectures. (Not given 1933-1934.)

COM. LIT. 107 s. *Introduction to the History of the Theatre* (2)—Two lectures.

Survey of the history of the stage and staging from the Greeks to the present day. Study of various dramas with emphasis on the manner of their stage presentation. (Zucker.)

MODERN LANGUAGE 202 y. *Seminar* (1). (Required of all graduate students in the department.) One meeting weekly.

MUSIC

MR. GOODYEAR; MRS. BLAISDELL.

MUSIC 1 y. *Music Appreciation* (2).

A study of all types of classsical music with a view to developing the ability to listen and enjoy. Lecture recitals will be presented with the aid of performers and records. A study of the orchestra, the instruments that it employs. The development of the symphony and orchestra instruments for solo performance. The development of the opera and oratorio. Great singers of the past and present.

MUSIC 2 y. *University Chorus* (2).

Study of part-songs, cantatas, and oratorios. Credit is awarded for regular attendance at weekly rehearsals, and participation in public performances of the chorus.

Students admitted who have ability to read and sing music of the grade of easy church hymns. No student may receive more than four credits for work in University Chorus.

MUSIC 3 y. *University Orchestra* (one credit).

The purpose of the University Orchestra is study of the classics. Works of the standard symphonists from Haydn and Mozart to Wagner and the modern composers are used. Students are eligible for membership who play orchestral instruments. At least one rehearsal of two hours duration is held each week, and all players are expected to take part in public performances.

MUSIC 4 y. *History of Music* (2)—One lecture.

A comprehensive course in the history of music covering the development of all forms of music from ancient times through the period of the renaissance; the classic and the romantic schools and the more modern composers.

(For courses in Voice and Piano, see under College of Arts and Sciences.)

PHILOSOPHY

PROFESSOR SPENCE.

PHIL. 1 f. *Introduction to Philosophy* (3)—Three lectures, and assignments. To be followed by Phil. 2 s. Not open to freshmen.

A study of the meaning and scope of philosophy; its relation to the arts, sciences, and religion.

PHIL. 2 s. *Problems and Systems of Philosophy* (3)—Three lectures, and reports on the reading of representative works. Prerequisite, Phil. 1 f. Not open to freshmen.

Study of the problems and systems of philosophy, together with tendencies of present-day thought.

MYTH. 1 s. *Mythology* (1)—One lecture.

Origin and reason of folklore and myth. Comparison of myths, mythology and modern thought.

For Advanced Undergraduates and Graduates

PHIL. 101 y. *History of Philosophy* (6)—Three lectures. Senior standing required.

A study of the development of philosophy from prehistoric times, through Greek philosophy, early Christian philosophy, medieval philosophy to modern philosophical thought. (Spence.)

PHYSICS

PROFESSOR EICHLIN; MR. CLARK.

PHYS. 1 y. *General Physics* (8)—Three lectures; one laboratory. Required of students in the Pre-medical curriculum and in the General and Agricultural Chemistry curricula. Elective for other students. Prerequisites, Math. 1 f and 2 s.

A study of the physical phenomena in mechanics, heat, sound, magnetism, electricity, and light.

PHYS. 2 y. *General Physics* (10)—Four lectures; one laboratory. Required of all students in the Engineering and Industrial Chemistry curricula. Elective for other students. Prerequisites, Math. 3 f and 4 s.

A study of mechanics, heat, sound, magnetism, electricty, and light.

PHYS. 3 s. *Special Applications of Physics* (4)—Three lectures; one laboratory. Especially for students in Home Economics.

A discussion of the laws and theories of Physics from the viewpoint of their practical application.

For Advanced Undergraduates and Graduates

PHYS. 101 f. *Physical Measurements* (3)—Two lectures; one laboratory. Elective. Prerequisite, Phys. 1 y or 2 y.

This course is designed for the study of physical measurements and for familiarizing the student with the manipulation of the types of apparatus used in experimentation in physical problems. (Clark.)

PHYS. 102 y. *Graphic Physics* (2)—One lecture. Elective. Prerequisite, Phys. 1 y or 2 y.

A study of physical laws and formulas by means of scales, charts, and graphs. (Eichlin.)

PHYS. 103 f. *Advanced Physics* (3)—Two lectures; one laboratory. Required of students in the Industrial Chemistry curriculum. Elective for other students. Prerequisite, Phys. 2 y.

An advanced study of Molecular Physics, wave motion, and heat. (Eichlin.)

PHYS. 104 s. *Advanced Physics* (3)—Two lectures; one laboratory. Elective. Prerequisite, Phys. 2 y.

An advanced study of electricity and magnetism. (Eichlin.)

PHYS. 105 y. *Advanced Physics* (6)—Three lectures. Elective. Prerequisite, Phys. 1 y or 2 y.

A study of physical phenomena in optics, spectroscopy, conduction of electricity through gases, etc., with a comprehensive review of their basic principles. (Eichlin.)

For Graduates

PHYS. 201 y. *Modern Physics* (6)—Three lectures. Elective.

A study of some of the problems encountered in modern physics. (Eichlin.)

POULTRY HUSBANDRY

PROFESSOR WAITE; ASSISTANT PROFESSOR QUIGLEY.

POULTRY 1 s. *Farm Poultry* (3)—Three lectures.

A general course in poultry raising, including housing, feeding, incubation, brooding, breeds, breeding, selection of stock, culling, general management, and marketing.

For Advanced Undergraduates and Graduates

POULTRY 102 f. *Poultry Keeping* (4)—Two lectures; two laboratories. Prerequisite, Poultry 1 s.

A study of housing and yarding, practice in making poultry house plans, feeding, killing, and dressing.

POULTRY 103 s. *Poultry Production* (4)—Two lectures; two laboratories. Prerequisites, Poultry 1 s and 102 f.

The theory and practice of incubation and brooding, both natural and artificial. Study of incubators and brooders, assembling, etc. Considerable stress will be placed on the proper growing of chicks into good laying pullets. General consideration of poultry disease. Caponizing.

POULTRY 104 f. *Poultry Breeds* (4)—Two lectures; two laboratories. Prerequisites, Poultry 1 s, 102 f, and 103 s.

A study of the breeds of poultry, the judging of poultry, fitting for exhibition, and the methods of improvement by breeding.

POULTRY 105 s. *Poultry Management* (4)—Two lectures; two laboratories. Prerequisites, Poultry 1 s, 102 f, 103 s, and 104 f.

A general fitting together and assembling of knowledge gained in the previous courses. Culling, marketing, including both selling of poultry products and the buying of supplies, keeping poultry accounts, hatchery management and operation, a study of poultry profits, how to start.

PSYCHOLOGY

PROFESSOR SPROWLS.

PSYCH. 1 f or s. *Elements of Psychology* (3)—Two lectures and one conference. Seniors in this course receive but two credits.

The concept of consciousness as dependent upon the reactions of the individual is applied to the problems of human behavior. In this course the fundamental facts and principles of mental life are presented as a basis, not only for better understanding the behavior of others, but also for the intelligent use of individual capacities and the formation of desirable personality and character traits. This course is given in both the first and second semesters.

See "Education" for description of the following courses:

ED. 4 f. *Educational Psychology* (3).

ED. 106 s. *Advanced Educational Psychology* (3).

ED. 107 f. *Educational Measurements* (3).

ED. 108 s. *Mental Hygiene* (3).

PUBLIC SPEAKING

PROFESSOR RICHARDSON; ASSISTANT PROFESSOR WATKINS; MISS BEALL.

P. S. 1 y. *Reading and Speaking* (2)—One lecture.

The principles and technique of oral expression; enunciation, emphasis, inflection, force, gesture, and the preparation and delivery of short original

speeches. Impromptu speaking. Theory and practice of parliamentary procedure.

P. S. 2 f. *Advanced Public Speaking* (2)—Two lectures.

Advanced work on basis of P. S. 1 y, with special applications and adaptations. At each session of the class a special setting is given for the speeches—civil, social, and political organizations, etc., and organizations in the fields of the prospective vocations of the different students. When a student has finished this course he will have prepared and delivered one or more speeches which would be suitable and appropriate before any and all bodies that he would probably have occasion to address in after-life.

P. S. 3 s. *Advanced Pubilc Speaking* (2)—Two lectures. Continuation of P. S. 2 f.

P. S. 4 y. *Oral Technical English* (2)—One lecture.

The preparation and delivery of speeches, reports, etc., on both technical and general subjects. Argumentation. This course is especially adapted to the needs of engineering students, and is coordinated with the seminars of the College of Engineering.

P. S. 5 y. *Advanced Oral Technical English* (2)—One lecture.

This course is a continuation with advanced work of P. S. 4 y. Much attention is given to parliamentary procedure. Some of the class programs are prepared by the students and carried out under student supervision. For junior engineering students only.

P. S. 6 y. *Advanced Oral Technical English* (2)—One lecture.

Advanced work on the basis of P. S. 5 y. Work not confined to class room. Students are encouraged to deliver addresses before different bodies in the University and elsewhere. Senior seminar. For senior engineering students only.

P. S. 7 f. *Extempore Speaking* (1)—One lecture.

Much emphasis on the selection and organization of material. Class exercises in speaking extemporaneously on assigned and selected subjects. Newspaper and magazine reading essential.

P. S. 8 s. *Extempore Speaking* (1)—One lecture.

Continuation of P. S. 7 f.

P. S. 9 f. *Debate* (2)—Two lectures.

A study of the principles of argumentation. A study of masterpieces in argumentative oratory. Class work in debating. It is advised that those who aspire to intercollegiate debating should take this course.

P. S. 10 s. *Argumentation* (2)—Two lectures.

Theory and practice of argumentation and debate. Similar to course P. S. 9 f. This course is offered for the benefit of those who may find it impracticable to take this work in the first semester.

P. S. 11 f. *Oral Reading* (1)—One lecture.

A study of the technique of vocal expression. The oral interpretation of literature. The practical training of students in the art of reading.

P. S. 12 s. *Oral Reading* (1)—One lecture.

Continuation of P. S. 11 f.

P. S. 13 f. *Advanced Oral Reading* (1)—One lecture. Prerequisite, P. S. 11 f or 12 s or the equivalent (if work is entirely satisfactory).

Advanced work in oral interpretation.

P. S. 14 s. *Advanced Oral Reading* (1)—One lecture. Prerequisite, P. S. 11 f or 12 s (if work is entirely satisfactory) or the equivalent.

Continuation of P. S. 13 f.

P. S. 15 f. *Special Advanced Speaking* (2)—Two lectures.

Class is organized as a Civic Club, and the work consists of such activities as are incident to such an organization—parliamentary law, committee work, prepared and impromptu speeches, etc.

Primarily for students in College of Education.

P. S. 16 s. *Special Advanced Speaking* (2)—Two lectures.

Continuation of P. S. 15 f.

ZOOLOGY

PROFESSORS PIERSON (Head), TRUITT; ASSISTANT PROFESSOR PHILLIPS; INSTRUCTOR BURHOE; MISS BERNARD, MISS BRAY.

ZOOL. 1 f or s. *General Zoology* (4)—Two lectures; two laboratories.

An introductory course which is cultural and practical in its aim. It deals with the basic principles of animal development, structure. relationships, and activities which are valuable for a proper appreciation of the biological sciences, psychology, and sociology. Typical invertebrates and the white rat, or other mammal, are studied. Required of all students in Agriculture and Arts and Science Education.

ZOOL. 2 f. *Elements of Zoology* (4)—Two lectures; two laboratories.

Emphasis is given to the fundamentals of the biology of vertebrates, with the frog as an example. The functions of the organ systems of man are reviewed. This course, with Zool. 3 s, satisfies the pre-medical requirements in biology. Freshmen who intend to choose zoology as a major should register for Zool. 2 f and Zool. 3 s.

ZOOL. 3 s. *Elements of Zoology* (4)—Two lectures; two laboratories. Prerequisite, Zool. 2 f.

Continuation of Zool. 2 f, presenting also many of the primary biological concepts and generalizations through the study of typical one-celled and the simpler many-celled animals. Students with credit for Zool. 1 f or s are not eligible for this course, but may be admitted to Zool. 2 f.

ZOOL. 4 s. *Economic Zoology* (2)—Two lectures. Prerequisite, one course in Zoology or Botany.

The content of this course will center around the problems of preservation, conservation, control, and development of the economic wild life of Maryland. The lectures will be supplemented by assigned readings and reports.

This course, combined with Zool. 6 s, should form a part of the basic training for professional foresters, game proctors, and conservationists.

ZOOL. 5 f. *The Invertebrates* (3)—One lecture; two laboratories. Prerequisite, Zool. 1 f or s.

This course consists in a study of the morphology and relationships of the invertebrate phyla.

ZOOL. 6 s. *Field Zoology* (3)—One lecture; two laboratories. Prerequisite, one course in Zoology or Botany.

This course consists in collecting and studying both land and aquatic forms of nearby woods, fields, and streams, with special emphasis upon insects and certain vertebrates, their breeding habits, environment, and economic importance.

Intended for teachers of biology, and also for those who have an interest in nature study and outdoor life.

ZOOL. 8 f. *Comparative Vertebrate Morphology* (4)—Two lectures; two laboratories. Prerequisite, Zool. 1 f or s, 2 f, or 5 f.

Required of pre-medical students and of students selecting Zoology as the principal department in the major group. A comparative study of selected organ systems in some of the classes.

ZOOL. 12 s. *Normal Animal Histology* (2)—Two laboratories. Prerequisite, one course in general zoology.

This course covers the general field of animal histology. Thus, although it presents a good background for medical histology, it offers a broad foundation of general histology for the student whose major is zoology. Number limited to twenty.

ZOOL. 15 f. *Human Physiology* (3)—Three lectures. Prerequisite, Zool. 1 f, 1 s, or 3 s.

A lecture and demonstration course for students not selecting Zoology as the principal department in the major group, who desire a knowledge of human anatomy and physiology. Emphasis is placed upon the physiology of digestion, circulation, respiration, and reproduction.

For Advanced Undergraduates and Graduates

ZOOL. 101 s. *Embryology* (4)—Two lectures; two laboratories. Prerequisites, two semesters of biology, one of which should be in this department. Required of three-year pre-medical students and those whose major is in this department.

The development of the chick to the end of the fourth day.

This course, combined with Zool. 8 f, furnishes much of the evidence for organic evolution, and indicates man's place in nature.

(Pierson, Burhoe.)

ZOOL. 102 f or s. *Cat Anatomy* (2-3)—A laboratory course. Prerequisite, one semester of General Zoology. Registration limited. Permission of the instructor must be obtained before registration.

Recommended for pre-medical students, for those whose major is zoology, and for prospective teachers. (Pierson.)

ZOOL. 103 y. *Journal Club* (2).

Reviews, reports, and discussions of current literature. Required of students selecting Zoology as the principal department in the major group. (Staff.)

ZOOL. 104 s. *General Animal Physiology* (3)—Two lectures; one laboratory. Prerequisites, one year of chemistry and one course in zoology. Registration is limited to twelve, and permission of instructor must be obtained before registration.

A study of the physiological phenomena exhibited by animal organisms. Required of those whose major is zoology. (Phillips.)

ZOOL. 105 y. *Aquiculture* (4)—Lectures and laboratory to be arranged. Prerequisites, one course in general zoology and one in general botany.

Plankton studies and the determination of other aquatic life of nearby streams and ponds. Morphology and ecology of representative commercial and game fishes in Maryland, the Chesapeake blue crab, and the oyster. (Truitt.)

ZOOL. 110 s. *Organic Evolution* (2)—Two lectures. Prerequisites, two semesters of biological science, one of which must be in this department.

The object of this course is to present the zoological data on which the theory of evolution rests. The lectures will be supplemented by discussion, collateral reading, and reports. (Not given every year.) (Pierson.)

ZOOL. 115 y. *Vertebrate Zoology* (2)—A laboratory course. Prerequisite, Zool. 8 f or its equivalent. Registration limited. Permission of instructor must be obtained before registration.

Studies in morphology or embroyology. (Pierson.)

ZOOL. 116 y. *Human Anatomy* (2-4)—A laboratory course. Prerequisite, Zool 1 f or 1 s. or the equivalent. Registration limited. Permission of the instructor must be obtained before registration.

Dissection of a cadaver involving a study of the gross anatomy of certain regions or systems of man, depending on the needs of the individual student.

Recommended for those students whose major is zoology, students of Physical Education, and prospective teachers. Premedical students may enroll only for the study of the skeletal system. (Pierson.)

ZOOL. 120 s. *Genetics* (3)—Two lectures; one laboratory. Prerequisite, one course in general zoology or general botany.

A general introductory course designed to acquaint the student with the fundamental principles of heredity and variation. While primarily of interest to students of biology, it will be of value to those interested in the humanities. Required of students in zoology who do not have credit for Genetics 101 f. (Burhoe.)

ZOOL. 140. *Marine Zoology*—(4-6).

This work is given at the Chesapeake Biological Laboratory, which is conducted cooperatively by the Maryland Conservation Department and the Department of Zoology, on Solomons Island, where the research is directed primarily toward problems concerned with commercial forms, especially the blue crab and the oyster. The work starts during the third week of June, and continues until mid-September, thus affording ample time to investigate complete cycles in life histories, ecological relationships, and plankton contents. Course limited to a few students, whose selection will be made from records and recommendations submitted with applications, which should be filed on or before June 1st.

Laboratory facilities, boats of various types fully equipped (pumps, nets, dredges, and other apparatus) and shallow water collecting devices are available for the work without extra cost to the student. (Truitt.)

GENETICS 101 f. (See page 225).

For Graduates

ZOOL. 200 y. *Marine Zoology* (6)—Problems in salt water animal life of the higher phyla. (Truitt.)

ZOOL. 201 y. *Advanced Vertebrate Morphology* (6)—Lecture and laboratory work on the comparative morphology of selected organ systems of the important vertebrate classes. (Not given in 1933-1934.) (Pierson.)

ZOOL. 203 f and s. *Advanced Animal Histology* (3)—One lecture; two laboratories.

Detailed study of the structure and function of animal cells and tissues. Laboratory work consists of the technical methods used in microscopic preparation and examination. (Phillips.)

ZOOL. 204 y. *Advanced Animal Physiology* (6)—One lecture; two laboratories.

Analyses of certain phases of the physiological activities of animals. (Not given in 1933-1934.) (Phillips.)

ZOOL. 206 y. *Research*—Credit to be arranged. (Staff.)

SECTION IV
DEGREES, HONORS, STUDENT REGISTER

DEGREES CONFERRED. 1932

HONORARY DEGREES

DOUGLAS HUNTLEY GORDON, Doctor of Laws
HARRY FRIEDENWALD, Doctor of Science
ALBERT FRED WOODS, Doctor of Science
WILLIAM HENRY WELCH, Doctor of Science

HONORARY CERTIFICATES OF MERIT

THOMAS ROY BROOKS
WILLIAM CLARENCE PRICE
DAVID G. ZENTZ

THE GRADUATE SCHOOL

Doctor of Philosophy

HOWARD B. CORDNER
B.S Brigham Young University, 1926.
M.S. Michigan State College, 1928
Dissertation:
"A study of certain factors affecting the set of fruit in Henderson Bush Lima Bean."

HERBERT REYNOLDS HIETT
A.B. Nebraska Wesleyan University,, 1915
M.A. University of Nebraska, 1925
Dissertation:
"Comparisons and contrasts in the philosophy of George Eliot and Thomas Hardy."

MARION WESLEY PARKER
B.S. Hampden-Sidney College, 1928
M.S. University of Maryland, 1930
Dissertation:
"A Physico-Chemical Study of the Soluble Polysaccharides of Sweet Corn."

Master of Arts

FORREST PERCIVAL BLUNT
WILLIAM PAUL COOPER
ANNE VANCE COXEN
ALFRED EDGAR CULLEY
RALPH GARRETH
MILDRED WRIGHT HARE
FREDERICK ZIMMERMAN HETZEL
VIRGINIA HOELZEL
VIRGINIA MAY KALMBACH
TRUMAN STONER KLEIN
HARRY BILLINGS LUNDQUIST
RUTH MILLER
ELEANOR LESLIE MURPHY
FRANCES ELLEN PRINGLE

EDGAR FARR RUSSELL
ANNA LEA SCHAIDT
CHARLES WIGHTMAN SEABOLD
EVELYN ECKERT SHANK
VIRGINIA SMITH

Master of Science

PAUL MEREDITH AMBROSE
WILLIAM HENRY ANDERSON
W. J. BASEHORE
MADELINE M. BERNARD
ARTHUR DONALD BOWERS
WILLARD C. BOYER
ELIZABETH BAKER BROWN
AMELIA CARMEL DEDOMINICIS
ARTHUR P. DUNNIGAN
RAYMOND ANDERSON FISHER
NOEL ELMER FOSS
JAMES B. GAHAN
ALBERT B. GODFREY
EDWIN M. GUE
MARCUS RANKIN HATFIELD
ROBERT WARNER HENDRICKS
EDWARD MELCHOIR HOSHALL
VAN C. HOWELL
CASIMIR THADDEUS ICHNIOWSKI
JOHN RICHARD KING
MARY ELIZABETH KOONS
JAMES NORMAN LECKIE
JOSEPH CONRAD LONG
D. VICTOR LUMSDEN
EARL DWIGHT MATTHEWS
GREGG HARPER MCCLURG
HAROLD SLOAN MCCONNELL
FRANK FORD NICKELS
HAZEL ESTELLE O'NEAL
JOHN JENKINS PARKS
ROBERT JOSEPH REEDY
HENRY CHARLES REITZ
WILLIAM GORDON ROSE
JAMES P. SWEENEY
MARTHA ROSS TEMPLE
LIONEL LEWIS VINCENT
LORIS ELWOOD WILLIAMS
MAX MORTON ZERVITZ

COLLEGE OF AGRICULTURE

Bachelor of Science

MARY HELEN CLAGETT
MANVILLE EDWARD COBLENTZ
*BOWEN SINCLAIR CRANDALL
HERBERT LEWIS DAVIS, JR.
THOMAS CLEVELAND DULEY
JAMES WALTER EBY
RALPH LEONARD ENGLAND
RUTH OLIVE ERICSON
WOLCOTT LOWEREE ETIENNE
RAYMOND RINKER FISHPAW
HOWARD WILMER GEARY
ENGEL LEE RUSSELL GILBERT
IRWIN HELLINGS GILBERT
HARRY ELWOOD GRAY
WILLIAM MILES HANNA
RHODA KATHRYN HATTON
HARRY CLAY HYSON
MARY MEIGS INGERSOLL
ELTON LEIGH KINDLEBERGER
WILLIAM MATHIAS KRICKER
WILLIAM FULLER LINES
FREDERICK HARNDEN MARSHALL
DANIEL S. MOORE
*ROGER LIONEL PIERPONT
NORMAN J. SHRIVER
MAX ATLEE SMITH
JAMES WILLIAM STEVENSON
HOWARD LIVINGSTON STIER
RUSSELL UMSTEAD
MARY MARGARET WALTON

COLLEGE OF ARTS AND SCIENCES

Bachelor of Arts

WILLIAM BLAKE ACKERMAN
JOHN DAVENPORT ALLEN

*Degrees conferred after June, 1932.

IRVING J. APPLEFELD
*EDWIN LESTER BEACHLEY
LOUIS WILLIAM BERGER
DAVID CHRISTIAN BLENARD
JAMES TODD BROOKS
EDMUND DAVID BROWER
HARRY PAUL BUTZ
MINNA ROZETTA CANNON
*RUDOLF AMBROSE CARRICO
CORNELIUS WILBUR CISSEL
*MORRIS MILTON COHEN
NORMAN PAUL CRONIN
RUTH ELEANOR CURTIS
MAY DEZENDORF
*FRANK CORNELIUS EBAUGH, JR.
HERBERT OSCAR EBY
ROY DUFFIELD ENGEL
*MEREDITH AUSTIN FLOOK
CHARLES WESLEY FOUTS
ALBERT GOLDSTEIN
ROSALIE JENSINE GOODHART
JAMES CHARLES GREELY, JR.
DON FRANCES HAMMERLUND
*EDWIN HARLAN
*ERNEST IRVIN HARRISON
ALBERT COURTNEY HAYDEN, JR.
JOHN ALBERT HEMP
JOHN BURGESS HENRY
MARGARET TURNER HERRING
JOHN WAYNE HISLE
FREDERICK WILLIAM INVERNIZZI
MAURICE A. KAPLAN
WILLIAM HENRY BENTON LEWIS
CATHERINE ELIZABETH LUERS
VIRGINIA LUERS
WILLIAM MCCREA LUNEY
ELEANOR WORTHINGTON MARGERUM
LORRAINE YVONNE MAGRUDER
CHARLES ALOYSIUS MAY
WILLIAM RICHARD MCCALLISTER
WARREN CLEMENTS MITCHELL
MAURICE JOHN MURPHY
HARRY K. NEEDLE
*THOMAS BRUE NEFF, JR.
JOHN WENDEL NEIDHARDT
LELIA KATHLEEN NESTOR
LAURA MAY NEVIUS
JOHN CLAYTON NORRIS
ROBERT CLARKSON OBERLIN
GEORGE FELTHAN OPENHAW
*ALFRED AUGUSTINE PEASE
*CARL PERGLER
CHARLOTTE ELIZABETH PYLES
ROBERT CAREY REEDER, JR.
MARGARET BOWEN ROSE
CHARLES ROYAL ROSS
MARJORIE LOUISE RUGGE
JOHN WARD SAVAGE
HARRY BRACE SCHRAMM
JOSEPH ALBERT SETTINO
RALPH GEORGE SHURE
CLAUDE HARMAN SMITH
KENNETH YUTZY STAHL
RALPH STERLING
ROBERT LONGDEN STOWELL
*JAMES RITTENHOUSE ULLRICH
RAPHAEL GERALD URCIOLO
DAVID JAY WARD, JR.
HENRY HOMER WASHBURN
JAMES EDWARD WELCH
ROBERT DARBY WILSON
DORIS M. ZABEL

Bachelor of Science

JOHN WARREN ALBRITTAIN
MIGUEL ALONSO CERVANTES
RONALD FREDERICK BROWN
HARRY KENNETH CLAYTON
GEORGE JOSEPH COPLIN
WILLIAM LUTHER CRENTZ
THOMAS GATEHOUSE DAVIS
DARIUS MCCLELLAND DIXON
GEORGE LEE ANDREW DRESSEL
HARRY MAREAN DUVALL
*AUGUST LUDWIG EWALD, JR.
HARRY D. FEIN
HARRY FRANKLIN FERGUSON, JR.
*JOHN NATHAN FRANKEL

*Degrees conferred after June, 1932.

Irving Freeman
Arthur Bucher Hersberger
*Max Harold Herstein
Saul Karpel
Frederick Edwin Knowles, Jr.
Archie Clifton Lewis
Karl Frederick Mech
Mable Frances Mudd
Edward A. Ronkin
*David Abraham Rosenfeld
Charles Giles Rosenstock
Victor Rosenthal
George Roth
John Carroll Russell
Emanuel Milton Satulsky
Louis Gustav Schneider
Joseph Arthur Sedlacek
James Thurman Shewbridge
Bernard Silber
*John Frederick Simmons
Oscar Lublin Spencer
Vernon E. Spitznagle
Milton Honore Stapen
Benjamin Maxwell Stein
Louis Teitel
Charles Brown Tompkins, II
John Voris
Norman James Wilson
William Keech Wilson
Joseph George Zimring

SCHOOL OF DENTISTRY

Doctor of Dental Surgery

Isadore Abramson
Charles Robert Applegate
Edward Jenkinson Ball
Carl Lorenz Basch
Charles Samuel Beamer
Edgar Leo Bessette
Joseph Boxer
Charles Easterday Broadrup
Samuel Hollinger Bryant
Thomas S. Chandler
Leon Austin Cheney
John William Coleman
John Dennis Corrigan, Jr.
Carroll D. Dern
Henry J. Edmonds, Jr.
Russell J. Emory
Jesse J. Englander
Donald Wilson Farrington
Joseph Feldblum
Arthur L. Fern
Nathan N. Frankel
D. Raymond Garrett
Joseph D. Gitlin
Ben Goodkin
Raymond John Graves
George T. Grosshans
Carl A. Hergert
Edwin E. Hill
Merrill Clarke Hills
Ernest Miller Jennings
Hammond Lee Johnston
Ward Beecher Jones
Joseph Stanley Kania
Vaiden B. Kendrick
Z. Vance Kendrick, Jr.
Arthur James Kershaw, Jr.
Norman Linder
Harry Witherell Lyons
Hector M. MacKenzie
James E. Madden
Miguel Leon Maldonado
J. Robert Manuel, Jr.
John Hayward Michael
Lyman F. Milliken
Tonnie G. Morgan
Francis Muir, Jr.
Alfredo M. Nadal
Irving Newman
A. Raymond Oliva
William Edward Parker
Richard B. Prather
Harry Mitchell Reid
Benjamin Louis Rosen
Reuben Rosenbloom

*Degrees conferred after June ,1932.

Abraham Frank Sidle
J. Monroe Steigleman
Alfred E. Theodore
Joseph Louis Vajcovec
George Onesime Vezina
H. Marcus Weitzel
Joseph S. Wickes
Albert W. Wiggins
Roy McCown Wilson

COLLEGE OF EDUCATION

Bachelor of Arts

Julia Calvert Arnold
Louise Gonzenbach Babcock
Doris Ruth Bishop
George Victor Chalmers
Charlotte Buckey Clemson
Wilmae Hope Colborn
Virgina Brown Cooke
Mary R. Crumb
Barbara Virginia Daiker
Walter P. Dent, Jr.
Ruth Elizabeth Diggs
John David Doerr
Theresa Frances Dunne
Ruth Eliza Greenwood
Alma Hickox
Rachel E. Holst
Dorothy Lee Lederer Jarrett
Abe S. Karasik
*Marguerita Kenny
Helen Livingston Keown
Charles Miller
Thomas Lawrence Miller
*Elizabeth Phillips Myers
Elizabeth Webster Norton
Grace Marie Oldenburg
Cecil Schutt
Elsie Virginia Stanforth
Edith Bernice Stinnette
Margaret Graham Stone
Charlotte Mason Taylor
William Wayne Travers
Georgia Roberta Turner
Myra Ferrier Wolf

Bachelor of Science

Jo Della Alband
Evelyn Truth Bixler
Mary Belle Belle Bowling
Samuel Parker Faber
James Homer House
Hilda Jones
Vera Lorraine Klein
Frances Rebecca McCubbin
William A. Miller
Maria A. Santinie
Sarah Isabelle Toulson
Walter Sherard Wilson

Teachers' Diplomas

Jo Della Alband
Irving J. Applefeld
Julia Calvert Arnold
Louise Gonzenbach Babcock
Doris Ruth Bishop
Evelyn Truth Bixler
Mary Belle Bowling
George Victor Chalmers
Seymour Morton Chideckel
Charlotte Buckey Clemson
Manville Edward Coblentz
Wilmae Hope Colborn
Virginia Brown Cooke
Mary R. Crumb
Ruth Eleanor Curtis
Barbara Virginia Daiker
Ruth Elizabeth Diggs
John David Doerr
Theresa Frances Dunne
Thomas Cleveland Duley

*Degrees conferred after June, 1932.

RALPH LEONARD ENGLAND
SAMUEL PARKER FABER
RAYMOND RINKER FISHPAW
RUTH ELIZA GREENWOOD
WILLIAM MILES HANNA
WALTER GILBERT HARRIS
MARGARET TURNER HERRING
ALMA HICKOX
RACHEL E. HOLST
JAMES HOMER HOUSE
SARA ETTA HUFFINGTON
DOROTHY LEE LEDERER JARRETT
HILDA JONES
ABE S. KARASIK
*MARGUERITA KENNY
ALICE ELIZABETH KENT
HELEN LIVINGSTON KEOWN
FRANCES LaRUE KING
VERA LORRAINE KLEIN
MIRIAM LLOYD
*ERMA LOUISE LOWE
ELEANOR WORTHINGTON MARGERUM
FRANCES REBECCA McCUBBIN
CHARLES MILLER
WILLIAM A. MILLER
DANIEL S. MOORE
*ELIZABETH PHILLIPS MYERS
LELIA KATHLEEN NESTOR
LAURA MAY NEVIUS
ELIZABETH WEBSTER NORTON
GRACE MARIE OLDENBURG
CHARLOTTE ELIZABETH PYLES
MARJORIE LOUISE RUGGE
MARIA A. SANTINIE
ELOYSE SARGENT
CECIL SCHUTT
JOSEPH ALBERT SETTINO
NORMAN J. SHRIVER
MAX ATLEE SMITH
ELSIE VIRGINIA STANFORTH
HOWARD LIVINGSTON STIER
MARGARET GRAHAM STONE
CHARLOTTE MASON TAYLOR
SARAH ISABELLE TOULSON
WILLIAM WAYNE TRAVERS
GEORGIA ROBERTA TURNER
MYRA FERRIER WOLF
WALTER SHERARD WILSON

Certificates in Industrial Education

WILLIAM GEORGE BOYLAN
EDGAR MILTON BULL
EVERETT STEWART McCAULEY
HARRY LYON ROBINSON, JR.

COLLEGE OF ENGINEERING

Civil Engineer

ALFRED FRANCIS DIENER
HORACE RICHARD HAMPTON

Electrical Engineer

WILLIAM ANDREW DYNES

Mechanical Engineer

ALAN B. NEUMANN

Bachelor of Science

CARL JULIUS ACKERMAN
CHARLES R. ALBAUGH
ROBERT HAMEL ALLEN
JOHN RODGERS BEALL
THEODORE BISHOFF
CHARLES WARREN BOGAN
WALTER BONNET
FREDERICK CHARLES BURTON
GERALD BURKE COE
HERBERT WILLIAM COOPER
CHARLES F. CRUMP, JR.
DANIEL ROBERDEAU DORSEY

*Degrees conferred after June, 1932.

HAZARD STEVENS ESKRIDGE
PAUL DeWITT FELLOWS
WILLIAM A. FISHER, JR.
HATCHER ROOME GIBSON
JOSEPH HAMILTON, JR.
EVELYN HARRISON
H. LLOYD HOKE
KENNETH SHELDON KESECKER
JAMES EUGENE LOUGHRAN
*ERCELL LARMAN MALONEY
EDWARD MARTIN McMANUS
*ALDRICH FRANCIS MEDBERY
JOSEPH MILLER
ROBERT H. ORWIG, JR.
ARTHUR HOWARD PITTAWAY
GEORGE ROSS RUHL
MORTON SILVERBERG
JESSE COURTNEY SUTER, JR.
THURL WILLIAM TOWER
ARTHUR GRAHAM TURNER, JR.
ROBERT MULLER WALKER
FRANCIS PATRICK WALTERS
SAMUEL CHESTER WARD
RALPH WARDLAW WATT
CHARLES VIRGIL WHALIN, JR.
EDMUND GODEY WHITEHEAD
*ALFRED EDWARD WILLIAMSON, JR.
DANIEL WEBSTER WILLINGMYRE, III

COLLEGE OF HOME ECONOMICS

Bachelor of Science

SARA ETTA HUFFINGTON
ALICE ELIZABETH KENT
FRANCES LaRUE KING
ETHEL-JEAN WALLACE LAMOND
ELIZABETH JANE McVEY
ELOYSE SARGENT
KATHRYN ELIZABETH SIEHLER
MARY HOLMES WELLS

SCHOOL OF LAW

Bachelor of Laws

FREDERICK EDWIN BEACHLEY
GEORGE MAUDUIT BERRY
H. ROSS BLACK, JR.
S. VANNORT CHAPMAN
EUGENE CREED, JR.
*WILLIAM HAZELWOOD DOYLE
WILMER HENRY DRIVER
THOMAS NATHANIEL FERCIOT, JR.
CHARLES HOWARD GUNDERSDORFF, JR.
PRESTON PATTERSON HECK
CHARLES WILLIAM HELD, JR.
AMOS ALBERT HOLTER
HENRY HOLZAPFEL, III
S. LLOYD JOHNSON
EMANUEL KLAWANS
BONA ROSINA LOCKWOOD
WALTER WORTH MARTIN
JAMES FRANK MATOUSEK
FRANCIS LITTLETON McDORMAN
HUGH ALLEN MEADE
PAUL HERBERT MEYER
MEYER MINDEL
GEORGE THOMAS NESS, JR.
DEELEY KRAGER NICE
WILLIAM HOLTON PARR
KENNETH CHAUNCEY PROCTOR
LEONARD HARVEY ROSENBLATT
J. HARRY SCHAD
FRANK JOSEPH SCHAP
NORMAN JEROME SMALL
ROBERT LEE SWAIN
JOHN GRASON TURNBULL
CHARLES FRANCIS WAGAMAN
SEYMOUR ZIEGLER

Certifcates of Proficiency

AGNES LEE HORTON
ARTHUR G. KAHL

*Degrees conferred after June, 1932.

SCHOOL OF MEDICINE

Doctor of Medicine

Mortimer D. Abrashkin
Carl Richard Ahroon, Jr.
Leon Ashman
Charles Raymond Bell, Jr.
James Russell Bell
Nathan Bercovitz
Herbert Berger
Samuel Daniel Blum
Daniel E. Bogorad
William Edward Brown
Jacob Byer
Martin L. Cannon
Hyman Chimacoff
David Stanford Clayman
Anthony Daniel Crecca
Dwight McIver Currie
Carroll Kalman Davis
Salvatore Demarco, Jr.
Joseph George Diamond
John Charles Dumler
Herbert Eichert
William Henry Eisenbrandt
Jack Fein
Elliott Fishbein
Charles Flom
Andrew Menaris France
S. Evans Ganz
Samuel Geller
David A. Gershenson
Solomon E. Gittleman
Albert Julius Glass
Albert Gerson Gluckman
Harold Gorenberg
Joseph Walter Grosh
Joseph Edwin Hall
David Halperin
Frank Mull Hammell
Irvin Hantman
Jacob Harris
Manes Scheuer Hecht
Hyman Bernard Hendler
Harry Clay Hull
Meyer William Jacobson
Abraham N. Kaplan
Arthur Karfgin
Abraham Katz
Leonard Katz
Lawrence Katzenstein
Sylvan Keiser
Henrietta R. Klein
*Louis Frank Klimes
Bernard Korostoff
Milton Bernard Kress
Alexander Allen Krieger
Sidney Lechner
Jacob Leffert
Samuel Legum
George Lerner
Samuel Lieberman
Reuben Richard Louft
Harry David Markman
William J. McGovern
William Owen McMillan
William Carter Mebane
John Hoke Mickley
Myron Joseph Miller
John Duer Moores
Arthur Nachlas
Alpheus Carlton Newman, Jr.
Richard R. Panebianco
Henry Robert Pear
Arthur Jay Philip
Solomon Harris Pink
Samuel Prigal
Samuel Edward Proctor
M. Murray Reckson
Marion Butler Roberts
Jack Zeth Rohm
Stephen Isaiah Rosenthal
Robert Rubenstein
Roberto Luis Sanchez
Thomas Sewell Saunders, Jr.
John Edward Savage
David I. Schwartz

*Degree conferred after June, 1932.

Max Herman Shack
John Jacob Shaw
Sidney Leon Siegel
George Silverstein
John Frederick Simmons
Jerome Snyder
Aaron C. Sollod
Arthur James Statman
Charles Stein
Frank Richard Stephenson
Francis Nicholson Taylor
Harry Goff Thompson
Thomas Haze Tomlinson, Jr.
Max Evans Whicker
Frank Wilson, Jr.
Carl Alexander Wirts
Howard Lester Zupnik
Meyer Harry Zuravin

SCHOOL OF NURSING

Graduate in Nursing

Nellie Virginia Butler
Blanche Virginia Cameron
Gladys Leona Durst
Mary E. Emery
Irene Douglass Travers Gladden
Maurice Hardin
Eva Opal Holloway
Margaret Louise Huddleston
Virginia Lee
Mildred E. Michael
Carrie Estelle Miller
Ella Irene Miller
Ruby Harrold Morris
Virginia Murdoch
Janet Beryl Reifsnider
Margaret Richards
Luella M. Rodes
Gladys Louise Rudisill
Ruth Madeline Schaffer
Josephine Alice Schuh
Arminta Eveline Taylor
Julia Weddington Thomson
Clara Evelyn Wilburn
Mary Elizabeth Worthy

SCHOOL OF PHARMACY

Graduate in Pharmacy

Daniel J. Abramson
Wilbur Gibson Askey
Richard Freeman Austraw
John Cletus Baier
Samuel D. Beck
Frederic Theodore Berman
C. Jelleff Carr
Leo M. Czekaj
Louis D. Davis
Joseph Drozd
George James Dvorak
Martin David Eisen
Milton Leonard Elsberg
Luis Falagan
Charles William Feldman
*Milton Herbert Feldman
Morris Feldman
Mildred Carol Fleagle
*Marvin J. Foxman
Isaac Frohman
Irving Oscar Galperin
Harry Joel Goldberg
Charles Gordon
Samuel Gordon
Bernard M. Gorfine
*Alvin A. Greenberg
John Conrad Heck
Henry Heneson
Leonard Louis Hens
Joseph James Hulla
Louis Jacobs
Benard C. Jules
Felix H. Kaminski
William Stanley Karwacki, Jr.
Nathan Allen Kelman
Charles Raymond Kesmodel

*Degrees conferred after June, 1932.

WALTER KIRSON
LEONARD HOWARD KRAMER
A. M. LIBOWITZ
EDWARD BENNETT LOVE
STEPHEN C. MACKOWIAK
HERMAN MENDELSON
JULIUS A. MESSINA
REUBEN MILLER
MARIUS ANTHONY MOSCATI
JOSEPH ROBERT MYEROVITZ
LYNDON BEAVER MYERS
MORTON ELLIOTT NAIDITCH
ANTHONY VICTOR ORDECKI
WILLIAM ANDREW PARR
CHARLES MICHAEL PFEIFER
JEROME RICHMOND
DEMETRIO A. RODRIGUEZ
MORRIS SACKS
GEORGE EUGENE SANDALS
JACOB E. SCHMIDT
JACOB ROTH SEGALL
HARRY HIGH SELLERS
LAWRENCE JOSEPH SHIMANEK
ALBERT ROBOSSON SHIPLEY
IRVING SILBERMAN
JOSEPH SILBERMAN
SAMUEL SISCO
SIDNEY SNYDER
JOSEPH LOUIS STECHER
ALBERT STEINER
EDWARD C. VOJIK
DANIEL GEORGE WEHNER
IDA NOVECK WOLF
JAMES JOHN YOUNG
SIDNEY ZERWITZ

Bachelor of Science in Pharmacy

WILLIAM BAKER
PAUL ELLIOTT CARLINER
LAWRENCE JACK COHEN
JUSTIN DEAL
SAMUEL DIENER
WILLIAM HELLER DYOTT
LEON HENRY FELDMAN
BENJAMIN H. GINSBURG
HERBERT GOLDSTONE
HOWARD GOODMAN
JOSEPH GORDON
ISAAC GUTMAN
KARL H. HOLTGREVE
*WILLIAM HOWARD HUNT
RICHARD BEN JAEGGIN
BERNARD JAFFE
NATHAN B. JANOUSKY
EDWARD S. KALLINS
JOSEPH KATZ
SYLVIA MILLETT
RAYMOND MILTON MORSTEIN
MAXWELL HERSCHEL MUND
LOUIS EDWARD OKEN
WILLIAM ARTHUR PURDUM
SAMUEL J. ROSTOV
SYLVAN I. RUBIN
NATHAN RUDO
HYMAN S. RUBINSTEIN
MILTON S. SACKS
DOROTHY ELIZABETH SCHMALZER
DANIEL JAMES SCHWARTZ
THEODORE ALLISON SCHWARTZ
LOUIS LAZAR SHERMAN
EARL MAURICE WILDER
NATHAN WOLF
JOSEPH I. WOLLMAN

MEDALS, PRIZES, AND HONORS, 1932

Elected Members of Phi Kappa Phi, Honorary Fraternity

JO DELLA ALBAND
IRVING J. APPLEFELD
JOHN RODGERS BEALL
THEODORE BISHOFF
RONALD FREDERICK BROWN
VIRGINIA BROWN COOKE
HOWARD B. CORDNER
RUTH ELEANOR CURTIS

*Degrees conferred after June, 1932.

BARBARA VIRGINIA DAIKER
HARRY MAREAN DUVALL
JOSEPH BAILEY EDMOND
RUTH OLIVE ERICSON
HOWARD WILMER GEARY
MARCUS RANKIN HATFIELD
IRVIN CHARLES HAUT
MARGARET TURNER HERRING
HERBERT REYNOLDS HIETT
JOHN WAYNE HISLE
HERMAN AULL HUNTER
MARY MEIGS INGERSOLL
DOROTHY LEE LEDERER JARRETT
EARLE DWIGHT MATTHEWS
JOSEPH MILLER
ELEANOR LESLIE MURPHY
GRACE MARIE OLDENBURG
GEORGE FELTHAM OPENSHAW
CHARLOTTE ELIZABETH PYLES
MARJORIE LOUISE RUGGE
ELOYSE SARGENT
LOUIS GUSTAV SCHNEIDER
EVELYN ECKERT SHANK
RALPH WARDLAW WATT
CLAUDE HARMAN SMITH
MARK WINTON WOODS
DORIS M. ZABEL

Citizenship Medal, offered by Mr. H. C. Byrd, Class of 1908
LOUIS WILLIAM BERGER

Citizenship Prize, offered by Mrs. Albert F. Woods
MINNA ROZETTA CANNON

Athletic Medal offered by the Class of 1908
GEORGE VICTOR CHALMERS

Maryland Ring, offered by Charles L. Linhardt
JESSE JOHN KRAJCOVIC

Goddard Medal, offered by Mrs. Annie K. Goddard James
ESDRAS STUART GRUVER

Sigma Phi Sigma Freshman Medal
EVELYN ROSE BRUMBAUGH

Alpha Upsilon Chi Sorority Medal
HELEN MARY BRADLEY

Dinah Berman Memorial Medal, offered by Benjamin Berman
ABRAHAM WALTER JACOBSON

Women's Senior Honor Society Cup
RUTH OLIVE ERICSON

Pi Delta Epsilon Journalistic Fraternity Medals
J. MARSHALL MATHIAS — JANE MAYNARD HOLST
ERNSTINE AMANDA HAMMACK

*Degree conferred after June, 1932.

The Diamondback Medals

WILLIAM C. H. NEEDHAM — LAWRENCE JOSEPH POWERS
ALFRED G. L. TOOMBS — HOWARD HUME MATHEWS
ELEANOR WORTHINGTON MARGERUM

The Reveille Medals

HARRY EKAS HASSLINGER — AUDREY ELIZABETH JACOBS
ALBERT JEFFERSON BENJAMIN

The Old Line Medals

WILLIAM RICHARD MCCALLISTER — JAMES CHARLES GREELY, JR.
ROSALIE JENSINE GOODHART

"Governor's Drill Cup," offered by His Excellency, Honorable Albert C. Ritchie, Governor of Maryland

COMPANY A—COMMANDED BY
CADET CAPTAIN GEORGE FELTHAM OPENSHAW

Military Faculty Award

CADET LIEUTENANT COLONEL RALPH WARDLAW WATT

Military Department Medals

CADET MAJOR LOUIS WILLIAM BERGER
CADET MAJOR SAMUEL PARKER FABER

Military Medal, offered by the Class of 1899

CADET CORPORAL HARRY TRUMBULL KELLEY

Washington Chapter Alumni Military Cup

SECOND PLATOON, COMPANY A—COMMANDED BY
CADET SECOND LIEUTENANT EDWARD WENDELL TIPPETT

University of Maryland Prize (Saber), to the Best Company Commander

CADET CAPTAIN GEORGE FELTHAM OPENSHAW

The Scabbard and Blade Saber, to Commander of Winning Platoon

CADET SECOND LIEUTENANT EDWARD WENDELL TIPPETT

Military Department Freshman Medals

CADET JOSEPH MARSHALL MATHIAS — CADET FRANCIS DODGE SHOEMAKER

Gold Medals (Military Band)

CADET SERGEANT EARL LESTER EDWARDS — CADET CORPORAL DONALD MURRAY

Squad Competition Gold Medals

CADET CORPORAL HARRY T. KELLY — CADET FRANKLIN L. WALKER
CADET CHARLES P. SEAY — CADET EVERETT C. WEITZELL
CADET JULIUS L. GOLDMAN — CADET WALTER N. TALKES
CADET ERNEST A. MICHAELSON — CADET WILLIAM D. DAVIS

Inter-Collegiate Third Corps Area Silver Medal

CADET FIRST LIEUTENANT WILLIAM LORRAINE SPICKNALL

Inter-Collegiate Third Corps Area Rifle Bronze Medal

CADET SERGEANT LLOYD FORRESTER FISH

WAR DEPARTMENT AWARDS OF COMMISSIONS AS SECOND LIEUTENANTS

The Infantry Reserve Corps

LOUIS WILLIAM BERGER
CORNELIUS WILBUR CISSEL
JOHN DAVID DOERR
SAMUEL PARKER FABER
JAMES CHARLES GREELY, JR.
ALBERT COURTNEY HAYDEN, JR.
JOHN WAYNE HISLE
RAYMOND WILLIAM KOELLE
WILLIAM MATHIAS KRICKER
WILLIAM FULLER LINES
CHARLES EDWARD MILLER
DAVID SCOTT MILLER
GEORGE FELTHAM OPENSHAW
CHARLES PAUL REICHEL
THOMAS OSCAR ROONEY
CLAUDE HARMAN SMITH
WILLIAM LORRAINE SPICKNALL
RALPH THOMAS STERLING
HOWARD LIVINGSTON STIER
EDWARD WENDELL TIPPETT
ARTHUR GRAHAM TURNER, JR.
RALPH WARDLAW WATT

The Signal Corps Reserve Corps

CARL JULIUS ACKERMAN
THEODORE BISHOFF
MORTON SILVERBERG
EDMUND GODEY WHITEHEAD

HONORABLE MENTION

College of Agriculture

First Honors — RUTH OLIVE ERICSON, MARY MEIGS INGERSOLL, HOWARD WILMER GEARY.

Second Honors—RALPH LEONARD ENGLAND, JAMES WILLIAM STEVENSON, HOWARD LIVINGSTON STIER.

College of Arts and Sciences

First Honors—GEORGE FELTHAM OPENSHAW, MARGARET TURNER HERRING, NORMAN JAMES WILSON, RUTH ELEANOR CURTIS, JOHN WAYNE HISLE, CHARLOTTE ELIZABETH PYLES, IRVING J. APPLEFELD, IRVING FREEMAN, HARRY MAREAN DUVALL, DORIS M. ZABEL, RONALD FREDERICK BROWN.

Second Honors—MARJORIE LOUISE RUGGE, CLAUDE HARMAN SMITH, LOUIS GUSTAV SCHNEIDER, THOMAS GATEHOUSE DAVIS, MIGUEL ALONSO CERVANTES, MARGARET BOWEN ROSE, ROSALIE JENSINE GOODHART, BERNARD SILBER, CORNELIUS WILBUR CISSEL, RAPHAEL GERALD URICIOLO, LAURA MAY NEVIUS.

College of Engineering

First Honors—Barbara Virginia Daiker, Jo Della Alband, Grace Marie Oldenburg, Dorthy Lee Lederer Jarrett, Virginia Brown Cooke.

Second Honors—Louise Gonzenbach Babcock, Rachel E. Holst, William A. Miller, Cecil Schutt.

College of Engineering

First Honors—John Rodgers Beall, Theodore Bishoff, Joseph Miller, Ralph Wardlaw Watt.

Second Honors—Herbert William Cooper, Joseph Hamilton, Jr., Gerald Burke Coe, Daniel Webster Willingmyre, III.

College of Home Economics

First Honors—Eloyse Sargent.

Second Honors—Kathryn Elizabeth Siehler.

School of Dentistry

University Gold Medals for Scholarship

Vaiden B. Kendrick — Z. Vance Kendrick, Jr.

Honorable Mention

Merrill Clark Hills — Tonnie G. Morgan
George T. Grosshans — Jesse J. Englander

School of Law

Prize of $100.00 for the Highest Average Grade for the Entire Course, Day School,

Charles Francis Wagaman

Prize of $100.00 for the Highest Average Grade for the Entire Course, Evening School,

Kenneth Chauncey Proctor

Alumni Prize of $50.00 for Best Argument in Honor Case in The Practice Court,

Wilmer Henry Driver

George O. Blome Prizes to Representatives on Honor Case in The Practice Court,

S. Vannort Chapman — Meyer Mindel
Wilmer Henry Driver — Charles Francis Wagaman

School of Medicine

University Prize—Gold Medal

Charles Raymond Bell, Jr.

CERTIFICATES OF HONOR

David Stanford Clayman — John Charles Dumler
John Edward Savage — Samuel Legum
Solomon E. Gittleman

The Dr. A. Bradley Gaither Memorial Prize of $25.00 for the Best Work in Genito-Urinary Surgery During the Senior Year,

John Hoke Mickley —

School of Nursing

The University of Maryland Nurses' Alumnae Association Scholarship to Pursue a Course in Administration, Supervisory, or Public Health Work at Teachers College, Columbia University, to the Student Having the Highest Record in Scholarship,

Luella Mildred Rodes

The Elizabeth Collins Lee Prize of $50.00 to the Student Having the Second Highest Average in Scholarship,

Virginia Lee

The Mrs. John L. Whitehurst Prize of $25.00 for the Highest Average in Executive Ability,

Luella Mildred Rodes

The Edwin and Leander M. Zimmerman Prize of $50.00 for Practical Nursing and for Displaying the Greatest Interest and Sympathy for the Patients

Luella Mildred Rodes

The University of Maryland Nurses' Alumnae Association Pin, and Membership in the Association, for Practical Nursing and Executive Ability,

Mary Elizabeth Emery

School of Pharmacy

Gold Medal for General Excellence,

Jacob E. Schmidt

The William Simon Memorial Prize for Proficiency in Practical Chemistry,

Felix H. Kaminski

The Charles Caspari, Jr., Memorial Prize ($50.00),

Ida Noveck Wolf

CERTIFICATES OF HONOR

Ida Noveck Wolf — Julius A. Messina — Felix H. Kaminski

Regimental Organization, R. O. T. C. Unit, 1932-1933

GEORGE O. WEBER, Lieutenant Colonel, Commanding
WILLIAM C. NEEDHAM, Captain, Regimental Adjutant

FIRST BATTALION

RALPH I. WILLIAMS, Major, Commanding
JOHN N. RANDOLPH, First Lieutenant, Adjutant

COMPANY "A"	COMPANY "B"	COMPANY "C"	COMPANY "D"
Captains			
Jack Riley, Commanding	William W. Wood, Commanding	Robert A. Maxwell Commanding	Arthur B. House Commanding
First Lieutenants			
Horace R. Higgins	Samuel E. McGlathery Guy W. Gienger	Arnold W. Smoot	Donald A. Shaffer

SECOND BATTALION

JOHN P. HUEBSCH, Major, Commanding
FRED S. LAWLESS, First Lieutenant, Adjutant

COMPANY "E"	COMPANY "F"	COMPANY "G"	COMPANY "H"
Captains			
Harry E. Hasslinger, Commanding	Robert E. Dunning, Commanding	E. Dorrance Kelly Commanding	John R. Mitchell Commanding
First Lieutenants			
John T. Doyle Leroy T. Gravatte	Howard M. Biggs	William E. Hauver	Elmer P. Curtin Roland A. Linger

CADET BAND

Band under the direction of Master Sergeant Otto Siebeneichen, Retired, formerly with The Army Band, Washington Barracks, Washington, D. C.

Non-Commissioned Officers

FIRST BATTALION

COMPANY "A"	COMPANY "B"	COMPANY "C"	COMPANY "D"
First Sergeants			
Spencer B. Chase	Robert G. Snyder	Edward W. Auld	Lawrence J. Powers
Sergeants			
Harry T. Kelly* John Simpson	Edwin H. Lawton Gordon H. Livingston	Harry E. Carter Frederick H. Cutting Edward F. Quinn	Norwood S. Sothoron* Robert W. Sonen

SECOND BATTALION

COMPANY "E"	COMPANY "F"	COMPANY "G"	COMPANY "H"
First Sergeants			
Edward W. Sebold	Earl L. Edwards	Harold B. Houston	Charles W. Ockershausen
Sergeants			
Richard O. White	Howard C. Turner* Thos. H. Webster, 3d	Bernard A. Sugrue* Harry D. G. Carroll Benjamin H. Evans	William H. Carpenter Jack P. Pollock

COLOR BEARERS

W. N. Talkes — W. E. Nevius

*Acting Platoon Commanders.

Register of Students, 1932-1933

COLLEGE OF AGRICULTURE

SENIOR CLASS

Beardsley, Erwin P., Washington, D. C.
Biggs, Willoughby H., Mt. Lake Park
Bishop, J. Tilghman, Carmichael
Burdette, Roger F., Mt. Airy
Callis, Marvin G., Accident
Clay, John W., College Park
Cole, George L., Washington, D. C.
Connelly, George E., Rising Sun
Cowgill, John B., Glendale
Dean, John P., Ridgely
Dunbar, William H., Little Valley, N. Y.
Duncan, John M., Washington, D. C.
Eiler, Charles M., Union Bridge
Ensor, John W., Sparks
Eyler, Lloyd R., Thurmont
Franklin, John M., Oakland
Gienger, Guy W., Hancock
Gorman, Herman, Washington, D. C.
Hauver, W. E., Myersville
Havlick, B. F., Secretary
Hunt, Dale I., Hyattsville
Krasausky, John W., Baltimore
Lewis, C. Maurice, Lantz
Littleford, Robert A., Washington, D. C.
Maxwell, Robert A., Marriottsville
McCann, Wilbur E., Streett
Powell, George, Jr., Princess Anne
Prince, Norman E., Towson
Pugh, Gordon S., Baltimore
Reichel, Charles P., Washington, D. C.
Rice, William L., Washington, D. C.
Richardson, Howard D., Willards
Shepard, Josiah, Chevy Chase
Stratmann, George H., Sparrows Point
Tillinghast, Jesse L., Clifton Hts., Pa.
Tinsley, Selden L., Washington, D. C.
Twilley, Howard J., Washington, D. C.
Wingate, Victor M., Wingate
Yedinak, Alec, Chesapeake City

JUNIOR CLASS

Auld, Edward W., Jr., Hyattsville
Baden, John A., Landover
Beall, Wilbur T., Silver Spring
Blood, Frank E., Washington, D. C.
Bush, Paul J., Washington, D. C.
Chase, Spencer B., Riverdale
Clark, John E., Forest Hill
Cotton, John, Washington, D. C.
Crotty, James F., Towson
Cunningham, Charles H., Washington, D. C.
Davis, Garnet E., Rocks
Doyle, Vernon T., Baltimore
Ensor, C. Rebecca, Fowblesburg
Evans, Benjamin H., Lonaconing
Hastings, Warren W., Lanham
Hutchins, J. Kenneth, Bowens
Jarrett, Beatrice Y., Baltimore
Lohrmann, Arthur, Gambrills
Lung, Paul H., Smithsburg
Nicholson, Albert T., Chestertown
Parish, Wesley H., College Park
Pfeiffer, Norman B., Laurel
Pielke, Gerald R., Fullerton
Presley, John T., Lanham
Ruble, Ralph W., Poolesville
Sebold, Edward W., Mt. Lake Park
Shear, Cornelius B., Rosslyn, Va.
Snyder, Robert G., Hagerstown
Thomas, E. Eugene, Jr., Frederick
Wells, Francis P., Washington, D. C.
White, Richard O., College Park
Williams, Donald B., Waterbury
Wooden, Ernest E., Jr., Reisterstown
Yauch, Charles D., Washington, D. C.

SOPHOMORE CLASS

Ashton, Donald F., Carnation, Wash.
Brown, James W., Washington, D. C.
Bunch, Edward L., Washington, D. C.
Calderwood, William B., Huntington, W. Va.
Caskey, Kenneth L., Takoma Park
Chilcoat, William H., Sparks
Clark, Charles, Chevy Chase
Clark, Charles H., Forest Hill
Dawson, Wilson F., Washington, D. C.
Downey, Fred C., Williamsport
Eiker, Walter M., Washington, D. C.
Fisher, Ralph C., Hyattsville
Fullerton, Merrill B., Bethesda
Garletts, Merle A., Selbysport
Gross, Clifford L., White Hall
Harns, Henry G., Washington, D. C.
Haupt, Joseph, Baltimore
Hays, Leonard M., Washington, D. C.
Hazard, Muriel F., Chevy Chase
Heyser, Carlton E., Brentwood
Hobbs, Truman A., Glen Echo
Hull, John L., Union Bridge
Huntington, Elizabeth L., Brookline, Pa.
Hurd, Jesse J., Jr., Chestertown
Jones, Omar J., Jr., Princess Anne
King, Addison W., Baltimore

King, James S., Germantown
King, William M., Washington, D. C.
Kitwell, Jeanette B., Washington, D. C.
Kramer, Ervin, Baltimore
Lawrence, Thompson C., Washington, D. C.
Leach, Frank J., Washington, D. C.
Lewis, Alfred W., Chevy Chase
Merryman, Nicholas B., Cockeysville
Mudd, John T., Bryantown
Noble, Wilmer S., Jr., Federalsburg
Ortenzio, Louis F., College Park
Poffenberger, Paul R., Smithsburg
Puncochar, Joseph F., Curtis Bay
Ramsburg, Herman F., Frederick
Richardson, Alfred P., Willards
Sahlin, Oscar, Annapolis
Silkman, John A., Baltimore
Slade, Hutton D., Baltimore
Staley, Joseph L., Knoxville
Stoner, Daniel B., Westminster
Stonier, Margaret A., Washington, D. C.
Stroup, Gilbert S., Myersville
Thomas, Ramsay B., Towson
Tydings, Warren E., Davidsonville
Vawter, James H., Laurel
Vincent, Rufus H., Hyattsville
Webster, John W., Pylesville
Wenzel, Marie E., Laurel
Windham, Aubrey B., Washington, D. C.
Wintermoyer, John P., Hagerstown

FRESHMAN CLASS

Allard, Howard F., Washington, D. C.
Bailey, John W., Aberdeen
Bartlett, Fitz J., Mt. Rainier
Bowers, Lloyd C., Oakland
Brabson, Willard L., Washington, D. C.
Buddington, Arthur R., College Park
Buscher, Bernard E., Washington, D. C.
Caldwell, James M., Chevy Chase
Cissel, Chester M., Ellicott City
Clark, Harry W., Forest Hill
Cohill, Edmund P. II, Hancock
Coulehan, Joseph M., Cumberland
Croft, Charles C., Washington, D. C.
Dodd, William S., Sirgen Glen, Va.
Dykes, John W., Washington, D. C.
Fales, John H., Silver Spring
Frederick, Douglas T., Washington, D. C.
Garrott, William N., Washington, D. C.
Godfrey, Sherard G., Branchville
Gottwals, Abram Z., Goldsboro
Griffith, Wiley G., Gaithersburg
Hall, Henry F., Lake Worth, Fla.
Harrington, George E., Washington, D. C.
Henderson, William H., Woodbine
Hoshall, Thomas J., Parkton
Imphong, Paul H., Hancock
Kidwell, Arthur S., Baltimore
Leatherman, Kenneth L., Thurmont
Leishear, Samuel A., Washington, D. C.
Mehring, Arnon L., Jr., Hyattsville
Miller, Oscar J., Washington, D. C.
Mitchell, Ryland L., Jr., Aberdeen
Mullinix, Paul E., Woodbine
Myers, William H., Oxford
Nelson, Richard H., Washington, D. C.
Newman, Howard P., Smithsburg
O'Keefe, Douglas W., Rockville
Pelczar, Michael J., Jr., Stemmers Run
Rabbitt, Alton E., Washington, D. C.
Radebaugh, Garnett D., Forest Hill
Raskob, Robert P., Centreville
Reid, Thomas S., Trenton, N. J.
Seger, Elmer L., Washington, D. C.
Selis, Zelda L., Baltimore
Sisson, Joseph W., Jr.. Washington, D. C.
Spates, Alfred W., Germantown
Stevens, C. Grayson, New Market
Stoddard, David L., Hyattsville
Swann, Thomas A., Faulkner
Wagaman, Kenneth R., Sabillasville
Warfield, William C., Cumberland
Watson, Douglas F., Rockville Centre, N. Y.
Weber, James L., Oakland
Weiss, Frank, Fullerton
Werth, Robert L., Washington, D. C.
Wills, Richard C., Washington, D. C.
Woolard, Robert N., Washington, D. C.
Yaeger, Charles F., Jr., Baltimore

UNCLASSIFIED AND PART TIME

Benesh, Otto, Washington, D. C.
Brendel, William P., Catonsville
Emack, Ellen P., Beltsville
Heidelbach, Henry R., Catonsville
Johnson, Daniel B., Beltsville
Katsura, Saburo, Bethesda
King, James X., Washington, D. C.
Lennartson, Roy W., Washington, D. C.
Moyer, Ralph N., Jr., Washington, D. C.
Poore, Cyril E., Washington D. C.
Rogers, William I., Beltsville
Spicknall, Norval H., Jr., Hyattsville
Wells, Carl H., Jr., Washington, D. C.

COLLEGE OF ARTS AND SCIENCES

SENIOR CLASS

Bates, Marian M., Chevy Chase, D. C.
Benjamin, Albert J., Salisbury
Bixler, E. Catherine, Capitol Heights
Blechman, Raphael, Mt. Vernon, N. Y.
Bogdanow, Morris, Jersey City, N. J.
Boyer, Roswell R., Hagerstown
Brandau, Adam G., Baltimore
Brennan, Alice M., Washington, D. C.
Brewer, Charles A., Rockville
Butt, Joseph A., Baltimore
Castaldo, Louis F., Bridgeport, Conn.
Clark, Winifred J., Washington, D. C.
Clay, Ambrose W. W., College Park
Clopper, Robert L., Smithsburg
Connell, Walter A., West Grove, Pa.
Connick, Harvey F., Washington, D. C.
Crawford, Catherine, Baltimore
Cronin, Virginia S., Aberdeen
Crowther, Harold E., Laurel
Dyott, J. Spencer, Easton
Farrington, Helen, Chevy Chase
Gerber, Charles, Jersey City, N. J.
Gingell, Loring E., Beltsville
Goubeau, Maurice H., Washington, D. C.
Gregory, Allen E., Seat Pleasant
Gruver, Esdras S., Hyattsville
Hannigan, Elena, College Park
Hardiman, Sannye E., Baltimore
Hasenbalg, Catharine, Baltimore
Hebbard, Russell E., Washington, D. C.
Higgins, Richard W., Washington, D. C.
Hines, Frank B., Chestertown
Hochfeld, Leo, Baltimore
Hoffman, M. Virginia, Hyattsville
House, Arthur B., College Park
Irey, Richard B., Washington, D. C.
Keener, Bernard H., Baltimore
Kiernan, Paul C., Washington, D. C.
Kunkowski, Mitchell F., Baltimore
Lamb, James E., Jr., Kensington
Lanahan, Doris, Laurel
Levin, Julius, Baltimore
Levinson, Leonard, Brooklyn, N. Y.
Meyer, Theodore F., Washington, D. C.
Miller, John W., Oxon Hill
Mowatt, Marjorie R., College Park
Mullen, Edward J., Jersey City, N. J.
Mullendore, Ralph E., Hagerstown
Perlman, Lawrence, Ridgewood, N. Y.
Plumley, J. Lawrence, Takoma Park
Poppelman, Raymond J., San Fernando, Calif.
Randolph, John N., Washington, D. C.
Riley, A. Jack, Washington, D. C.
Rill, Woodrow W., Hampstead
Rombach, Dorothy S., Dundalk
Rooney, Thomas O., Washington, D. C.
Savage, John B., Jr., Baltimore
Schloss, Jerome, Baltimore
Semoff, Milton C. F., New York Harbor, N. Y.
Shaffer, Donald A., College Park
Simpson, Dorothy E., Chevy Chase
Small, Jeffrey M., Hyattsville
Somers, Robert G., Crisfield
Stieber, Fred W., Towson
Taterka, Adrian, Grantwood, N. J.
Tippett, Edward W., Washington, D. C.
Toombs, Alfred G., Washington, D. C.
Weinman, Sidney, Baltimore
Welch, Robert G., Galena
Welsh, Thomas H., Hyattsville
Wilcox, F. C., Takoma Park
Williams, Ralph I., Washington, D. C.
Young, G. Kinkead, Washington, D. C.
Yourtee, John A., Stafford, Va.
Zimmerman, Gordon K., Washington, D. C.

JUNIOR CLASS

Abarbanel, Milton, Jersey City, N. J.
Adams, John R., Jr., Takoma Park
Allen, Rolfe L., Washington, D. C.
Anderson, Richard P., Mt. Rainier
Asimakes, Charles P., Baltimore
Barenburg, Clara, Baltimore
Blacklock, Sarah R., Bel Alton
Blandford, Alma, College Park
Blumberg, Gilbert B., Baltimore
Bowen, James E., Stoakley
Bradley, Helen M., Takoma Park
Brueckner, M. Evelyn, College Park
Burbage, Stuart J., Glen Burnie
Burdette, Margaret M., Mt. Airy
Buzzard, G. Frederick, Ridgewood, N. J.
Cain, Elizabeth S., Hyattsville
Cairns, Robert S., Jr., Washington, D. C.
Campbell, William H., Washington, D. C.
Carpenter, William H., Washington, D. C.
Carroll, Harry D. G., Cambridge
Carter, Harry E., Washington, D. C.
Chappell, Donald W., Washington, D. C.
Coffey, Annie R., Landover
Cole, Seldon D., Silver Spring
Collins, Stewart A., Riverdale
Coughlan, Stuart G., Baltimore
Cowherd, William J., Cumberland
Daiker, Russell F., Washington, D. C.
Dannemiller, Barbara, Chevy Chase
Decker, James S., Frederick
Dement, Richard H., Indian Head
Dickey, John M., Washington, D. C.

Diggs, Everett S., Baltimore
Dyer, Harry E., Havre de Grace
Ebaugh, Irvin, Baltimore
Edwards, Earl L., Washington, D. C.
Ehle, Elizabeth V., Perry Point
Ellison, Emanuel S., Baltimore
Elvove, Joseph T., Washington, D. C.
Evans, Doris B., Washington, D. C.
Franklin, Mary T., Hyattsville
Gibel, Harry, Capitol Heights
Goffin, Herbert, New York, N. Y.
Goldsborough, T. Alan, Denton
Grant, Rosalie C., Washington, D. C.
Griffith, Dorothy, Takoma Park
Hala, Mary F., Long Island City, N. Y.
Hamburger, Herbert D., Baltimore
Herring, Charles E., Jr., Baltimore
Hoffman, Louis, Baltimore
Hollander, Manuel, Washington, D. C.
Hollins, Stanley M., Baltimore
Holst, Jane M., College Park
Hood, Charlotte W., Mt. Airy
Horne, William A., Chevy Chase
Howard, Frank L., Hyattsville
Hull, David F., Hagerstown
Irwin, Wayne D., Frostburg
Jacobs, Audrey E., Washington, D. C.
Jacobson, Nathan, Frederick
Jones, Thomas W., Jr., Ridgely
Jones, Woodrow W., Cambridge
Keenan, Charles T., Windber, Pa.
Kent, Edgar R., Baltimore
King, Parke L., Germantown
Klingel, Emily E., Baltimore
Knox, Douglas R., Baltimore
Levine, Joseph, Paterson, N. J.
Levine, Leonard W., Norfolk, Va.
Lewis, Charles E., Hagerstown
Lewton, Rhoda, Takoma Park
Littman, Louis, Washington, D. C.
Loizeaux, Alfred M., Towson
Long, Bryant A., Edmonston
Long, William B., Jr., Westover
Manieri, Frank V., Baltimore
Matheke, Otto G., Jr., Newark, N. J.
McGann, Theodore, Washington, D. C.
McWilliams, John H., Indian Head
Meyer, Eleanor L., Ozone Park, N. Y.
Meyer, Milton J., Jamaica, N. Y.
Mills, Mary E., Pocomoke City
Murray, Donald A., Mt. Airy
Naughton, Harold E., Cumberland
Needham, William C. H., Washington, D. C.
Newcomer, Edgar B., Washington, D. C.
Nicholson, J. Frank, Chevy Chase
Pashen, Nathan, Hagerstown
Penn, Thomas H., Glyndon
Person, Norma R., Brooklyn, N. Y.
Pitts, Robert R., Washington, D. C.
Powers, Lawrence J., Frostburg
Rafferty, William B., Baltimore
Reed, Ralph D., Takoma Park
Remley, Estelle W., Baltimore
Rinehart, Charles W., Chewsville
Robertson, James C., Jr., Baltimore
Roney, James A., Jr., North East
Rose, Kenneth F., Washington, D. C.
Schall, Richard D., Berwyn
Schnebly, Lewis A., Jr., Clearspring
Sclar, Jacob B., Silver Spring
Scott, John W., Jr., Elkton
Seay, Charles, Washington, D. C.
Shapiro, Abraham, Baltimore
Shaw, Ann B., College Park
Short, Sarah L., Baltimore
Silber, Sam L., Baltimore
Simpson, John, Chevy Chase
Skrzypkowski, Stanley K., Nanticoke, Pa.
Small, John R., Washington, D. C.
Smyrnas, Peter P., Washington, D. C.
Sothoron, Norwood S., Charlotte Hall
Stapen, Mannie, Brooklyn, N. Y.
Sugrue, Bernard A., Washington, D. C.
Sutton, Marion P., Kennedyville
Suwalsky, Sydney, Hartford, Conn.
Swift, Clifton E., Washington, D. C.
Swigert, Wesley J., Baltimore
Tabler, Homer E., Hancock
Thomas, Elizabeth D., Burnham, Pa.
Troth, Horace E., Chevy Chase
Vignau, John, Washington, D. C.
Watkins, Orville R., Hyattsville
Weiss, Henry W., Ellenville, N. Y.
Welsh, Llewellyn H., Washington, D. C.
White, Frederick W., Washington, D. C.
White, Robert W., Salisbury
White, S. Cottrell, Baltimore
Wilson, Helen L., Mt. Rainier
Wolf, George F., Baltimore
Zirckel, John H., Baltimore

SOPHOMORE CLASS

Abrahams, John J., Port Deposit
Allison, Herbert M., Washington, D. C.
Applefeld, Willard, Baltimore
Archer, Robert H., Bel Air
Arnold, Hubert K., Washington, D. C.
Ashton, John C., Washington, D. C.
Baldwin, Willis H., Havre de Grace
Beach, Paul L., Washington, D. C.
Beale, William L., Washington, D. C.
Bender, Dorothy L., Columbus, Ohio

Bernstein, Harold, New York City, N. Y.
Blackman, Raymond S., Vienna, Va.
Blanes, Rafael A., Mayaguez, P. R.
Bloom, Morris, Baltimore
Booth, David T., Ridgewood, N. J.
Bounds, William E., Salisbury
Bourke, Anne R., Washington, D. C.
Bourke, John J., Jr., Washington, D. C.
Bower, Laurence R., Mt. Rainier
Brooks, Abraham, Washington, D. C.
Brueckner, Fred L., College Park
Brumbaugh, Evelyn R., Washington, D. C.
Byers, John G., Lonaconing
Campbell Thomas W., Hagerstown
Cannon, Martha A., Takoma Park
Carey, Ann R., Cambridge
Carter, Edward P., Washington, D. C.
Carter, William A., Washington, D. C.
Caspari, Fred W., Riverdale
Cave, Edward F., Washington, D. C.
Cheston, Harvey J., Jr., Washington, D. C.
Christie, Robert C., Silver Spring
Chumbris, Peter, Washington, D. C.
Coe, Mayne R., Jr., Washington, D. C.
Cohn, Sanford, New York City, N. Y.
Cook, Frances J., Catonsville
Corwin, Thomas P., Washington, D. C.
Crecca, Joseph V., Newark, N. J.
Cronin, Cornelius F., Joppa
Cross, Chester B., Washington, D. C.
Crossley, George L., Riverdale
Cullen, Richard E., Delmar, Dela.
Davidson, Charles R., Washington, D. C.
Deck, John J., Cliffside Park, N. J.
Deckelbaum, Nathan, Washington, D. C.
Dennis, G. Graham, Havre de Grace
Deppish, John R., Spesutia Island
DeVeau, Donald, Chevy Chase
DiStefano, Louis S., Baltimore
Dobbins, Donald V., Champaign, Illinois
Dobson, Scott, Annapolis
Dodd, Laurence J., Harrisburg, Pa.
Drake, Lillian, Washington, D. C.
Dubnoff, Herman, Passaic, N. J.
Dumville, George L., Niagara Falls, N. Y.
Dulin, Thaddeus R., Washington, D. C.
Dunn, Elsie M., Washington, D. C.
Edelson, David, Neptune, N. J.
Edlavitch, Samuel L., Washington, D. C.
Edmonds, Ralph M., College Park
Edmondson, Charles E., Cambridge
Erickson, Karina A., Washington, D. C.
Farrell, George R., Chevy Chase
Farrell, Hugh G., Metuchen, N. J.
Ferguson, Jean, Baltimore
Flanders, Robert H., Washington, D. C.
Flowers, Richard H., Baltimore
Fooks, D. Hance, Snow Hill
Fox, Sylvan, Baltimore
French, Charles T., Frederick
Goldman, Luther C., Washington, D. C.
Goodhart, Raymond J., Washington, D. C.
Gould, William D., Baltimore
Graham, James G., Washington, D. C.
Graves, Robert J., Kensington
Griffith, Grace C., Washington, D. C.
Gurd, Clarence H., Brooklyn
Haas, Charles F., Swedesboro, N. J.
Hancock, Lucile C., Stockton
Harrison, Hillman C., Washington, D. C.
Harrison, Joseph O., Washington, D. C.
Haydon, Robert L., Jr., Hyattsville
Herman, Joseph I., Baltimore
Herrell, Sophia E., Mt. Rainier
Higham, Harry W., Washington, D. C.
Hollingsworth, York D., Hyattsville
Holloway, James P., Washington, D. C.
Holmes, John H., Washington, D. C.
Holmes, Paul E., Washington, D. C.
Horky, J. Ralph, Bel Air
Horner, Jack C., Washington, D. C.
Horsey, Thomas C., Greensboro
Horvath, Gaza, Baltimore
Hubbert, Tilghman S., Cambridge
Jackson, Robert B., Salisbury
Jannarone, Lewis H., Belleville, N. J.
Jeffers, Walter F., Berwyn
Jester, John M., Jr., Washington, D. C.
Jones, Bruce W., Washington, D. C.
Jones, Helen, Washington, D. C.
Jones, Margaret E., Baltimore
Jones, William R., Ridgely
Kahn, Arthur E., Jersey City, N. J.
Karow, William K., Baltimore
Kelmenson, Harry, Baltimore
Kerr, Roy H., Hyattsville
Kressin, Eugene L., Washington, D. C.
Lane, James F., Jr., Goldsboro
Lanham, William B., Jr., College Park
Lasky, Saul R., Baltimore
Latterner, Arthur L., Washington, D. C.
Law, Francis E., Washington, D. C.
Lawall, Willard M., Washington, D. C.
Lawder, L. Waggner, Jr., Washington, D. C.
Leaf, Leah L., Williamsport
Lee, Barbara M., Landover
Lee, Gilbert R., Washington, D. C.
Lee, Zaidee, Long Branch, N. J.
Lees, Wayne L., Washington, D. C.
Leibold, Edward P., Baltimore
Lipin, Edward J., Pasadena
Locraft, James W., Washington, D. C.
Long, Eloise G., Salisbury
Lord, Ruth, Washington, D. C.
Lutes, Lawrence V., Silver Spring
Lutman, Frank C., Burlington, Vt.

Lyddane, Eugene T., Washington, D. C.
Magill, Charles H., Washington, D. C.
Mann, Arthur W., Washington, D. C.
Marburger, Doris A., Baltimore
Marche, Louise C., Hyattsville
Martin, Ernest, Washington, D. C.
Martin, Janette W., Wilmington, Dela.
Mathias, Joseph M., Washington, D. C.
Mayhew, John W., Hyattsville
McCullough, Benjamin O., Washington, D. C.
McFadden, Roscoe I., Port Deposit
McGann, Robert R., Washington, D. C.
Mersel, Milton J., New York City, N. Y.
Meyers, Amos I., Baltimore
Michaelson, Ernest A., Bladensburg
Miles, Franklin T., Washington, D. C.
Miles, Walter, Jr., Chevy Chase, D. C.
Miller, Mary L., Silver Spring
Monk, John E., Washington, D. C.
Moore, Staton W., Fruitland
Mostow, Elmer, Bladensburg
Mumford, Richard D., Willards
Newman, Edward A., Baltimore
Nevius, W. E., College Park
Nichols, Elijah E., Pikesville
Ockershausen, Richard W., Washington, D. C.
Peck, Donald E., Damascus
Peck, Robert A., Damascus
Physioc, Stephen H., Baltimore
Pickels, Thomas H., Catonsville
Pike, James W., Washington, D. C.
Potts, Virginia L., Baltimore
Powell, Joseph E., Brookeville
Pratt, Herbert M., Queenstown
Rakowsky, Charles J., Baltimore
Rasinsky, Hyman, Baltimore
Raw, Clifford B., Washington, D. C.
Reicher, Sol M., Baltimore
Rittenhouse, Charles K., Baltimore
Rizzolo, John, Newark, N. J.
Rochberg, Sam, Passaic, N. J.
Rosenbaum, Herbert H., Baltimore
Ross, Allen M., Washington, D. C.
Rothkopf, Henry, Ellenville, N. Y.
Rourke, Hugh A., Washington, D. C.
Ruehle, John A., Washington, D. C.
Ruppert, John A., Washington, D. C.
Salganik, Jerome C., Baltimore
Samet, Lester A., Baltimore
Schaaf, Henry K. T., Ellicott City
Schrott, Frances A., Washington, D. C.
Scott, Clarence, Baltimore
Seward, Anita K., Overlea
Shankle, Daniel R., Washington, D. C.
Shulman, Ralph A., Stamford, Conn.
Singer, Mildred M., New Brunswick, N. J.
Skozilas, John W., Baltimore
Smith, Talbert A., Washington, D. C.
Speck, Marvin L., Middletown
Stallings, Mary L., Washington, D. C.
Stevens, Robert R., Washington, D. C.
Talkes, Walter N., Washington, D. C.
Tartikoff, George, Brooklyn, N. Y.
Thomas, Bernard O., Frederick
Thomas, Robert W., Washington, D. C.
Thompson, E. Wells, Washington, D. C.
Thompson, Winfield L., Rehoboth
Toole, Elizabeth L., Lanham
Treide, Edward C., Baltimore
Valaer, Peter J., III, Washington, D. C.
Venemann, Chester R., Riverdale
Verdgeline, Louis F., Rome, N. Y.
Vickers, Osbon, Laurel
Walker, George, Washington, D. C.
Wantz, Charles D., Hagerstown
Warhol, John, Jr., Mahwah, N. J.
Warshafsky, Herman, Washington, D. C.
Webb, Thomas D., Washington, D. C.
Weirich, William B., Hyattsville
Weisberg, Millard, Baltimore
Weist, Bettina M., Washington, D. C.
West, Berma J., Washington, D. C.
Whitacre, Esther M., Silver Spring
Wilcoxon, June E., Washington, D. C.
Willey, Edward J., Washington, D. C.
Williams, Harry M., Washington, D. C.
Williams, Ralph C., Washington, D. C.
Wilson, Harry T., Baltimore
Winckelmann, Julliett, Washington, D. C.
Wise, Franklin B., Dover, Dela.
Wolf, Sidney, Baltimore
Woods, Charles S., Washington, D. C.
Worthen, Mary A., Mt. Rainier
Worthington, Richard W., Baltimore
Wyatt, Thomas F., Clarendon, Va.
Young, James M., Washington, D. C.
Zacek, Frank A., Webster, Mass.
Zimmermann, Verna M., Baltimore

FRESHMAN CLASS

Aaron, James P., Jr., Baltimore
Alber, Harry F., Washington, D. C.
Allen, Dorothy B., Washington, D. C.
Allen, Julia B., Chevy Chase
Allwine, Franklin N., Washington, D. C.
Altevogt, William J. F., Baltimore
Ambrose, Herbert D., Baltimore
Appelbaum, Morris, Washington, D. C.
Armiger, Walter H., Beltsville
Askin, Leonard, Washington, D. C.
Avery, Edward F., Washington, D. C.
Bageant, William E., Washington, D. C.
Baldwin, David H., Jr., Washington, D. C.
Barnsley, June, Rockville

Beach, Anne deB., Chevy Chase
Beattie, James S., Washington, D. C.
Bell, William P., Washington, D. C.
Benjamin, Albert N., Baltimore
Benjamin, Paul E., Baltimore
Benson, Morris, Washington, D. C.
Berman, Ben I., Washington, D. C.
Berman, Bertrand S., Baltimore
Biever, William H., Hagerstown
Binkley, William G., Hyattsville
Biondi, Alec C., Washington, D. C.
Bittorf, William H., Baltimore
Blanchard, William St. J., Jr., Washington, D. C.
Blumenkranz, Edward A., Southampton, N. Y.
Boarman, William F., Hyattsville
Bogley, Samuel E., Chevy Chase
Bohannan, C. T. R., Kensington
Bonnet, John C., Washington, D. C.
Bonnette, Gordon W., Silver Spring
Boothe, John E., Jr., Washington, D. C.
Bowker, Lucile, Washington, D. C.
Boyle, Raymond B., Washington, D. C.
Bradley, Donald C., Chevy Chase
Bradley, Walter B., Baltimore
Brady, Maurice S., Seat Pleasant
Brill, John H., Baltimore
Brooks, Lois G., Washington, D. C.
Brown, Nelson A., Landover
Browning, Warren, Lanham
Buckholtz, William H., Jr., Cumberland
Buck, Harry, Jr., Marlboro
Buckingham, William O., Washington, D. C.
Bulluck, Howard L., Baltimore
Burroughs, Reginald, Jr., Marlboro
Callahan, Charles L., Baltimore
Carscaden, William R., Cumberland
Catlin, John S., Crisfield
Chaconas, Harry J., Washington, D. C.
Chapin, Mildred F., Chevy Chase
Charuhas, John, Washington, D. C.
Clagett, John D., Washington, D. C.
Clifford, John R., Washington, D. C.
Coale, Ennis H., Bel Air
Coburn, Frances I. M., Hyattsville
Cogswell, Charles L., Washington, D. C.
Cogswell, Corbin C., Jr., Pikesville
Cohen, Hilliard, Baltimore
Coleman, Edith M., Hyattsville
Collins, Frederick V., Washington, D. C.
Collins, Lucca V., Washington, D. C.
Crivella, Agnes E., Washington, D. C.
Crockett, Cary I., Jr., Washington, D. C.
Cronin, William B., Aberdeen
Culp, Richard T., Chevy Chase
Cummings, Bernard A., Chevy Chase
Cutler, Dorothy M., Silver Spring
Cuvillier, Louis M., Washington, D. C.
Dantzig, George B., Hyattsville
Dasher, Irvin P., Ellicott City
Davidson, Mildred, Chevy Chase
Dawson, Charles E., Washington, D. C.
De Marco, Carmel, Washington, D. C.
Dennis, James B., Havre de Grace
Denton, Ruth E., Washington, D. C.
Di Costanzo, Salvatore, Newark, N. J.
Di Giulian, Lawrence H., Washington, D. C.
Dolan, Loretta M., Sparrows Point
Dolan, Patrick L., Sparrows Point
Donovan, Dorothy C., Washington, D. C
Dorsey, Charlotte T., Hyattsville
Drape, Fred T., Baltimore
Eaton, Ernest R., Jr., Washington, D. C
Ellis, Joseph A., Hebron
Ennis, Louis A., Long Branch, N. J.
Erbe, Theodore H., Baltimore
Evans, Ralph I., Washington, D. C.
Farson, John H., Showell
Fawell, Reed M., Washington, D. C.
Felstein, Jack, Washington, D. C.
Fisher, Ethel A., Marlboro
Fleming, William J., Waterbury, Conn.
Fletcher, Edward J., Takoma Park
Ford, John B., Lanham
Ford, Mary W., Baltimore
Fowler, Charles R., Washington, D. C.
Fox, Harold H., Baltimore
Fox, Ruth, Chestertown
French, William F., Washington, D. C.
Friedman, Harold B., Silver Springs
Fuller, Ruth M., Riverdale
Gale, Ruth, Hyattsville
Gammon, James E. F., Washington, D. C.
Gammon, Nathan, Washington, D. C.
Garber, George D., Frederick
Garter, Solomon H., Brooklyn, N. Y.
Gatch, Leanor H., Baltimore
Golden, Lex B., Washington, D. C.
Goldstein, Hyman, Baltimore
Gosnell, Earl J., Washington, D. C.
Grady, Percy P., Washington, D. C.
Graham, William J., Washington, D. C.
Gravatte, Jack L., Washington, D. C.
Green, Doris M., Catonsville
Greenfield, Ray H., Takoma Park
Greenwood, Grace L., Brentwood
Greve, Curtis F., Washington, D. C.
Grier, George S. III., Milford, Del.
Grinstead, Marjorie R., Washington, D. C.
Grott, Harold, Baltimore
Haines, Mahlon N., II, York, Pa.
Hamma, Maynard F., Washington, D. C.
Hammer, Elmer J., Jr., Baltimore
Hancock, William O., Washington, D. C.
Handler, Isidor, Kingston, N. Y.
Harman, Jessie M., College Heights

Harned, Hilda, Washington, D. C.
Hart, George C., Baltimore
Hart, James F., Baltimore
Hathaway, Caleb R., Chevy Chase
Hatos, Stephen L., Washington, D. C.
Hecht, Jacob E., Havre de Grace
Helfgott, J. Leon, Washington, D. C.
Hendley, Mary E. R., Baltimore
Hendrix, Nevins B., Port Deposit
Herrmann, Louis G., Baltimore
Hoge, William T., Catonsville
Hooker, Charles B., Takoma Park
Howeth, Robert W., Jr., Crisfield
Huff, Magruder W., Bethesda
Hutchins, Thomas M., Bowens
Hyatt, Herbert S., Damascus
Ijams, George E., Baltimore
Isaacson, Benjamin, Long Branch, N. J.
Israelson, Max R., Baltimore
Jennings, Felix C., Norfolk, Va.
Johns, Malcolm L., Washington, D. C.
Jones, Donald B., Takoma Park
Jones, Marguerite E., Laurel
Katzman, Nathan, Washington, D. C.
Keller, Mary C., Washington, D. C.
Kelley, Thomas J., Washington, D. C.
Kelly, Gertrude L., Severn
Kesler, Katherine E., Washington, D. C.
King, Robert M., Cumberland
Kissinger, Charles C., Washington, D. C.
Koontz, Warren S., Ellicott City
Kuhns, Marjorie A., Ocean City
Lacey, Harry A., Salisbury
Lankford, Melvin C., Baltimore
Lansford, Wilson A., Bethesda
Laukaitis, Peter E., Waterbury, Conn.
Lavender, Robert L., Washington, D. C.
Lavine, Harold H., Mt. Rainier
Law, Charles E., Washington, D. C.
Leet, Harvey T., Chevy Chase
Leitch, W. Harvey, Friendship
Leon, Albert K., Jr., Washington, D. C.
Lessans, Herbert, Baltimore
Linton, Ulle C., Washington, D. C.
Litschert, Robert G., Washington, D. C.
Lopez-Mena, Nina, Baltimore
Love, Richard H., Hyattsville
Love, Solomon, Washington, D. C.
Lung, Homer D., Smithsburg
Lupshutz, Bernard M., Washington, D. C.
Lynn, Harry J., Washington, D. C.
Maddox, Hattie L., Hyattsville
Mangan, Leo F., Washington, D. C.
Mangawang, Valentin R., Riverdale
Matthews, Jason E., Jr., Washington, D. C.
May, John B., III, Washington, D. C.
McAboy, Lyman R., Washington, D. C.
McCallam, Robert H., Jr., Mt. Rainier
McCarthy, Joseph H., Washington, D. C.
McComas, George W., Silver Spring
McComas, Laura A., Abingdon
McCoy, Marsh T., Washington, D. C.
McDaniel, Edna P., Jarrettsville
McFerrin, Sidney P., Baltimore
McIntire, Mary L., Oakland
McLain, Edward J., Washington, D. C.
Medler, Herman P., Chevy Chase
Meeds, Eleanor R., Silver Spring
Meiser, Woodrow W., Baltimore
Melchionna, Olin R., Rochelle Park, N. J.
Meloy, Samuel W., Washington, D. C.
Meyer, Alvin F., Yonkers, N. Y.
Miles, Dorothy H., Washington, D. C.
Miller, David, Washington, D. C.
Miller, Jean, Beltsville
Miller, Rebecca C., Beltsville
Mitchell, Jeane, Washington, D. C.
Mitchell, Jesse R., Ellicott City
Mobus, Paul F., Ellenslie
Moody, Louis H., Jr., Washington, D. C.
Moreland, Miriam L., Washington, D. C.
Morgan, Charles R., Washington, D. C.
Morgan, Joseph H., Welcome
Mullett, William B., Silver Spring
Murray, Guy E., Washington, D. C.
Nacrelli, Chris A., Marcus Hook, Pa.
Neff, Dorothy L., Washington, D. C.
Nelligan, Timothy B., Washington, D. C.
Norment, Nancy L., Hagerstown
Norup, Julianne L., Washington, D. C.
Notkin, Ruth, Paterson, N. J.
O'Donnell, Dorothy E., Washington, D. C.
Offutt, Elizabeth L., Chevy Chase
Oland, Charles D., Olney
O'Leary, Louise S., Chevy Chase
Owings, Eleanore J., Hyattsville
Parker, Marion E., Washington, D. C.
Parker, Ruth E., Baltimore
Peed, Benjamin F., Mt. Rainier
Peeling, Kelvin A., Camp Hill, Pa.
Petersen, Frederick M., Washington, D. C.
Pierson, Claribel G., Hyattsville
Pittman, Edward W., Washington, D. C.
Platt, Doran S., Jr., Washington, D. C.
Powell, Frances K., Brookeville
Pultz, Kathryn E., Takoma Park
Pyle, Elmer W., Dundalk
Pyle, Lawrence A., Washington, D. C.
Quijano, Gregorio R., Riverdale
Quinn, John A., Washington, D. C.
Quirk, Anna M. L., Washington, D. C.
Quirk, Betty C., Washington, D. C.
Racoosin, William I., Washington, D. C.
Reid, Robert T., Baltimore
Reines, Alfred M., Washington, D. C.
Richter, Christian F., Overlea

Rintoul, James L., Jr., Baltimore
Robb, John M., Cumberland
Robb, William B., Jr., Cumberland
Robertson, Thomas E., Washington, D. C.
Rodier, John M., Lanham
Rogers, Clara B., Marblehead, Mass.
Rombro, Leonard, Baltimore
Rosenberg, David, Washington, D. C.
Ruben, Mortimer, Brooklyn, N. Y.
Rudasill, Virginia D., Baltimore
Ruppel, William J., Baltimore
Ruzicka, Edwin R., Baltimore
Sacks, Jerome G., Baltimore
Sallow, William H., Baltimore
Sanford, Alton L., Chevy Chase
Saum, Hugh H., Jr., Washington, D. C.
Schaffer, George H., Jr., Baltimore
Schauman, Albert C., Baltimore
Scheele, George A., Jr., Washington, D. C.
Scheele, Thomas F., Washington, D. C.
Schneider, Bernard, New York City, N. Y.
Schwartz, Esther, Baltimore
Scrivener, David S., Washington, D. C.
Selleck, Ruth J., Bay Shore, N. Y.
Sesso, George F., Washington, D. C.
Sheats, Thomas H., Baltimore
Sherman, Lillian E., Queenstown
Sieling, Frederick W., Elkridge
Sleman, John B., Chevy Chase
Slye, Robert W., Jr., Washington, D. C.
Small, Milton, Hempstead, N. Y.
Smith, Clifford B., Washington, D. C.
Smith, James B., Pasadena
Smith, Leonard, Washington, D. C.
Smith, Raymond R., Washington, D. C.
Sockrider, Elsie M., Washington, D. C.
Soltanoff, Walter, Montclair, N. J.
Spencer, Harman L., Washington, D. C.
Spies, Margaret B., Washington, D. C.
Stack, William A., Bennings, D. C.
Stalfort, Carl G., Baltimore
Stambaugh, Kenneth A., Baltimore
Stanton, William A., Hyattsville
Stark, Elwood V., Aberdeen
Starr, John E., Hyattsville
Sterling, Meta A., Crisfield
Stevens, Charlotte E., Bethesda
Supik, William J., Baltimore
Swann, George S., Baltimore
Sweeney, Thomas R., Washington, D. C.
Tax, J. Jerome, Brooklyn, N. Y.
Taylor, Samuel C., Washington, D. C.
Temple, Robert G., Hyattsville
Thoenen, Charlotte E., Washington, D. C.
Thomason, Clarence T., Washington, D. C.
Thompson, Olen F., Bennings, D. C.
Thorne, Clayton T., Silver Spring
Thorup, William B., Washington, D. C.
Thrasher, Edward J., Washington, D. C.
Tillotson, William B., Catonsville
Tomchik, John M., Emmitsburg
Towers, Gottlieb C., Preston
Tucker, Lester W., Abingdon
Tull, Miles L., Marion
Tunis, John O., Jr., Pompton Lakes, N. J.
Turner, Evelyn C., Salisbury
Turner, Virginia P., Salisbury
Valentine, Ellicott, Washington, D. C.
Vandervoort, Susan H., Silver Spring
Velenovsky, Joseph J., Baltimore
Vincent, Dorothy L., Baltimore
Wagaman, Samuel M., Hagerstown
Waite, Merton T., Odenton
Wall, Christine L., Catonsville
Waller, William F., Silver Spring
Wasserman, Sidney, Baltimore
Webb, Albert W., Vienna
Webster, John F., Baltimore
Wells, Joan K. M., Washington, D. C.
Welsh, Paul E., Baltimore
Wenchel, John P., Washington, D. C.
Wennagel, George F., Ellicott City
Whalin, Cornelius, College Park
Whalin, James T., College Park
Whiteford, Charles G., Baltimore
Wilfong, John S., Upper Marlboro
Willard, Daniel D., Cumberland
Williams, Mildred R., Chevy Chase
Williams, William W., Washington, D. C.
Williamson, George L., Cumberland
Willis, Victor G., Elkton
Wilsnack, William H., Mamaroneck, N. Y.
Wilson, Meredith R., White Hall
Wimbrow, Pete A., Whaleyville
Wolfe, John K., Washington, D. C.
Woodell, John H., Williamsburg
Wright, Harvey C., Washington, D. C.
Yeager, Paul J., Catonsville
Young, Harold K., Detour
Yowell, Roy H., Washington, D. C.
Zalesak, Francis J., Washington, D. C.
Zalis, Daniel L., Baltimore
Zihlman, Frederick A., Washington, D. C.
Zola, Benjamin, Washington, D. C.

UNCLASSIFIED AND PART TIME

Bowman, George W., Beltsville
Butz, Harry P., Washington, D. C.
Coyle, Alexander T., Brentwood
Eaton, Effie M., Hyattsville
Jackson, Thomas, Hyattsville
Kadan, J. Earl, Baltimore
Lacy, Lois E., Washington, D. C.
Lovell, Ralph H., Brentwood

Marth, Bernard M., College Park
Miller, Lucile C., Beltsville
Roberts, Gordon S., Washington, D. C.
Saylor, Zella P., Hyattsville
Thomas, F. H., Washington, D. C.

SCHOOL OF DENTISTRY

POST-GRADUATE STUDENTS

Carroll, Walton Cudmore, Baltimore
Snyder, Louis Frederick, Seattle, Wash.
Ulen, Francis, Carydon, Ind.

SENIOR CLASS

Bailey, Richard Anson, Orange, Conn.
Barclay, Robert Stark, Dry Run, Pa.
Barile, George Michael, Hoboken, N. J.
Berman, Nathan, Jersey City, N. J.
Bisnovich, Samuel Sidney, Waterbury, Conn.
Block, Philip Leonard, Baltimore
Bloomenfeld, Julius, New York, N. Y.
Bowers, Malcolm Baker, Cape Cod, Mass.
Brener, Herman, Asbury Park, N. J.
Britowich, Arthur A., Newark, N. J.
Brotman, Abe Allen, Newark, N. J.
Brown, Morris Edgar, Fairmont, W. Va.
Brownell, Dudley Curtis, Oswego, N. Y.
Chesterfield, Wallace Burton, Newburgh, N. Y.
Clark, William Gilbert, Elizabeth, N. J.
Clayton, Paul Ramon, Lansdale, Pa.
Cook, Albert Cope, Frostburg
Duryea, David Henry, Hawthorne, N. J.
Eskow, Jack Meyer, Perth Amboy, N. J.
Flory, Arlington Ditto, Thurmont
Fruchtbaum, David Pearson, Newark, N. J.
Gaebl, William Louis, Cumberland
Garmansky, J. Harry, Asbury Park, N. J.
Gillman, Charles, Newark, N. J.
Ginsburg, Aaron Albert, Lakewood, N. J.
Goldiner, Morton Joseph, Baltimore
Goldstein, Lewis, Perth Amboy, N. J.
Gordon, Ralph Jack, Baltimore
Gorsuch, Charles Bernard, Baltimore
Gothers, John Leonard, Hartford, Conn.
Gurvitz, Robert Herbert, Asbury Park, N. J.
Hall, Henry Herbert, Annapolis
Hamilton, Bruce Putnam, Northboro, Mass.
Helfmann, Nathaniel Leonidas, Newark, N. J.
Hoffman, Emanuel, Baltimore
Holter, Paul Wilson, Baltimore
Homel, Samuel H., Baltimore
Horton, Leon Leonard, New Haven, Conn.
Hoy, John Alfred, Shippensburg, Pa.
Hunt, Robert Nathaniel, Lexington, N. C.
Icaza, Jorge, Nicaragua, C. A.
Janowitz, Aaron J., Glen Rock, N. J.
Kaplan, Irving, Bayonne, N. J.
Kirschner, William Henry, West Haven, Conn.
Kocis, Joseph Steven, Jr., Garfield, N. J.
Kowalski, Walter Joseph, Mocanagua, Pa.
Krasnow, George, Jersey City, N. J.
Kroser, Philip Ralph, Newark, N. J.
Kwan, Amy Hokwan, Tientsin, China
Leary, Edgar Thomas, New Castle, Delaware
Levine, Alexander, Weehawken, N. J.
Liddy, Martin A., Jr., Morristown, N. J.
Lora, Edward James, Union City, N. J.
Lott, Harland Winfield, Forest City, Pa.
Mansell, Howard Coffin, Maplewood, N. J.
Markowitz, Louis Joseph, New York, N. Y.
McClung, Daryl S., Huntington, W. Va.
McDermott, William Joseph, Pawtucket, R. I.
McGarry, Charles Edward, Baltimore
McGuire, Richard Francis, New Haven, Conn.
McKay, Warren, Hackensack, N. J.
Moore, Filbert LeRoy, Baltimore
Nathan, Morris Harry, Hartford, Conn.
Nelson, Leo, Spring Valley, N. Y.
Nussbaum, Milton S., Newark, N. J.
Omenn, Edward, Wilmington, Del.
Ortiz, Jose Aurelio, Costa Rica, C. A.
Paquette, Normand Jean, New Bedford, Mass.
Piche, Theodore Lionel, Burlington, Vt.
Piombino, Joseph, Jr., Bloomfield, N. J.
Reed, Allen John, Lorraine, N. Y.
Richardson, David Horn, Halethorpe
Rodgers, Clarence John, Baltimore
Rubin, Joseph, New York, N. Y.
Sandford, Russell Charles, Rutherford, N. J.
Schindler, Samuel Edward, Hagerstown
Schreiber, Jerome Eugene, Newark, N. J.
Schwartz, Cliff, Newark, N. J.
Schwarzkopf, Anton James, Miami Beach, Fla.
Seligman, Leon, Baltimore
Shulman, Joseph, West New York, N. J.
Steinfeld, Irving, Newark, N. J.
Stramski, Alphonse, Danvers, Mass.
Thrall, Ralph Botsford, New Britain, Conn.
Tocher, Robert John, Seymour, Conn.
Todd, Merwin Armel, Jr., Beach Haven, N. J.
Toubman, Joseph William, Hartford, Conn.
Trax, Frederick H., Warren, Pa.
Waldman, Harold Francis, New Haven, Conn.
Wheeler, Arthur S., Baltimore
Wheeler, George Edmund, Jr., Port Jefferson, L. I., N. Y.
Wick, Mahlon Newton, Woodbury, N. J.
Willer, David Herbert, Wilmington, Del.

JUNIOR CLASS

Aumock, George Harry, Freehold, N. J.
Baker, Myron Spessard, Hagerstown
Biddix, Joseph Calton, Jr., Baltimore
Bimestefer, Lawrence William, Dundalk
Blazis, William Francis, Elizabeth, N. J.
Bloom, Theodore, New York, N. Y.
Blumenthal, Hyman, Rahway, N. J.
Browning, Douglas Arthur, Baltimore
Burns, Donald, Newton Centre, Mass.
Burroughs, Charles Elson, East Orange, N. J
Butt, Kenneth Lee, Elkins, W. Va.
Caplan, Sylvan, Baltimore
Carhart, Alfred Embrey, Palisades, N. J.
Cofrancesco, Richard Ernest, Waterbury, Conn.
Devine, Lawrence Joseph, Needham, Mass.
Diamond, Leo Lloyd, Long Branch, N. J.
Diani, Anthony John, Clifton, N. J.
Diaz, Ernesto Davila, Santurce, Porto Rico
Donovan, Joseph Patrick, Hartford, Conn.
Fallowfield, Harry Wallace, Jr., Chestertown
Feinstein, Paul Percy, Elizabeth, N. J.
Fisch, Norman Lawrence, Morristown, N. J.
Gillespie, Raymond William, New Haven, Conn.
Glick, Abraham, Union, N. J.
Gorenberg, Philip, Jersey City, N. J.
Gotthelf, Meyer, Baltimore
Grove, John Pendleton, Roanoke, Va.
Guida, Frank J., Elizabeth, N. J.
Hamer, Alfred Ernest, Rutherford, N. J.
Hanlon, Andrew John, Philadelphia, Pa.
Heaton, Charles Earle, Providence, R. I.
Heefner, Allen, Waynesboro, Pa.
Huang, Gertrude Chun Yen, Tientsin, China
Imbach, William Andrew, Jr., Baltimore
Iuliano, Frank Jerry, Newark, N. J.
Johnson, James Colona, Jr., Cambridge
Josephson, Arthur, Newport, R. I.
Joule, William Robert, Arlington, N. J.
Kurtz, George M., Paterson, N. J.
Kwiecien, Walter Howard, Bloomfield, N. J.
Levine, William Milton, New Haven, Conn.
Lilien, Bernard, Newark, N. J.
Liloia, Nicholas Frank, Nutley, N. J.
Maisel, James, New Britain, Conn.
Marchesani, Rosario Pompeo, Newark, N. J.
Martin, Ernest Lee, Leaksville, N. C.
Martini, Joseph, Passaic, N. J.
Maytin, Herbert Sydney, Albany, N. Y.
McLean, Peter Anthony, Trinidad, B. W. I.
McLean, Robert Rettie, Jersey City, N. J.
Mimeles, Meyer, Newark, N. J.
Mullins, Harold Edward, Bridgeport, Conn.
Newman, Herbert Paul, Union City, N. J.
Older, Lester Bernard, Union City, N. J.
Pargot, Aaron, Perth Amboy, N. J.
Pichacolas, Joseph Francis, Tamaqua, Pa.
Raeder, Arthur, Brooklyn, N. Y.
Richardson, Alexander Liles, Leaksville, N. C.
Roberts, Edmund Percy, Roselle, N. J.
Robinson, Frederick Logan, Baltimore
Rockoff, Samuel Charles, Bridgeport, Conn.
Romano, Victor Michael, Bridgeport, Conn.
Ross, Jean Davis, Hudson, N. J.
Russell, O'Neal Franklin, Eastport
Russo, Joseph Aloysius, New Castle, Del.
Sabatino, Christian Frank, Scotch Plains, N. J.
Samet, Samuel, Brooklyn, N. Y.
Schunick, William, Baltimore
Shanahan, James Francis, Catonsville
Shenkman, Max, Brooklyn, N. Y.
Sober, Louis David, Baltimore
Taubkin, Milton Louis, Union City, N. J.
Taylor, Howard Greenwood, Jr., Frederick
Taylor, Preston Reeves, Mount Holly, N. C.
Thomas, Marvin Richard, Slatington, Pa.
Thompson, Lester Wilson, Fairmont, W. Va.
Timinsky, Abraham Harry, Newark, N. J.
Trager, Jesse, Baltimore
Turnamian, Levon Charles, Woodcliffe, N. J.
Turner, Fred Arnold, Baltimore
Weisbrod, Samuel John, Brooklyn, N. Y.
Wycalek, Theodore Lean, Brooklyn, N. Y.
Yablon, Abraham, Atlantic City, N. J.
Yerich, Jack Edwin, Newark, N. J.

PRE-JUNIOR CLASS

Anderson, Philip Warren, Portland, Me.
Angalone, John, Baltimore
Beckenstein, Samuel, Norwich, Conn.
Beetham, William Allen, Baltimore
Berkowitz, Joseph B., Baltimore
Bernard, Henry Chandler, Kennett Square, Pa
Bisese, Pasquel John, Portsmouth, Va.
Black, Joseph Heatwole, Paterson, N. J.
Blake, Harris, Paterson, N. J.
Bodnar, John Clarence, Trenton, N. J.
Bonante, John Andrew, Sykesville, Pa.
Boyarsky, William, Passaic, N. J.
Bradshaw, Donald Frederick, New London, Conn.
Bridges, Stanley J., Prospect Harbor, Me.
Caldwell, James Theodore, Springfield, Mass.
Centanni, Alfonse Guide, Newark, N. J.
Charney, Louis Mortimer, Paterson, N. J.
Coroso, Louis Frank, Hartford, Conn.
Costenbader, William Benjamin, Norfolk, Va.
Craig, Robert James, Wallingford, Conn.
Cross, Gerald Preston, Jersey City, N. J.
Cuddy, Frederick James, Edgewood, R. I.
Curcio, Emil Louis, Brooklyn, N. Y.

DeKoning, Edward Jay, Wheeling, W. Va.
DeNoia, Anthony Domenic, Newark, N. J.
Donohue, Thomas Van, Toms River, N. J.
Dosh, Stanley Hyde, Baltimore
Emrich, Harry S., Jr., Baltimore
Eramo, William Stephen, Berkshire, Mass.
Escalona, Rafael, Baltimore
Eye, Kenneth David, Franklin, W. Va.
Feuer, Milton Louis, Kearny, N. J.
Flannery, Michael James, Jersey City, N. J.
Freedman, Gerson Armand, Baltimore
Friedman, Julius William, Bridgeport, Conn.
Goldberg, Eugene Ashton, Montclair, N. J.
Goldberg, Solomon Emanuel, Hartford, Conn.
Goldstein, Morris, Philadelphia, Pa.
Golubiewski, Casimir Francis, Bayonne, N. J.
Gourley, John William, East Braintree, Mass.
Grossman, Nat, Newark, N. J.
Hampson, Robert Edward, Baltimore
Hanik, Samuel, Paterson, N. J.
Hartley, Thomas Grant, Baltimore
Hills, Clifford Owen, Hartford, Conn.
Hoehn, Samuel Edmund, Lakewood, Ohio
Hoffman, Elmer Norman, Baltimore
Hook, Charles Edward, Riderwood
Houlihan, John Joseph, Torrington, Conn.
Ingber, Jack Isadore, Baltimore
Jorjorian, Arthur David, Providence, R. I.
Kayne, Clyde Benjamin, Brooklyn, N. Y.
Kobrinsky, Taffy Theodore, Winnipeg, Canada
Krulewitz, Donald, Passaic, N. J.
Lerner, William G., Belmar, N. J.
Levickas, Adolf Thomas, Baltimore
Levinson, Isadore, Baltimore
Mahoney, John Patrick, Tewksbury, Mass.
Markowitz, Aaron Burton, Paterson, N. J.
Marquez, Vernon Brensley, Trinidad, B. W. I.
Michelson, Melvin, Belmar, N. J.
Minkoff, Leo Herbert, Paterson, N. J.
Morris, Samuel, Belmar, N. J.
Morrissey, John B., Caldwell, N. J.
Noel, William Wood, Hagerstown
Parmesano, Frederick Joseph, Elkins, W. Va.
Pente, Angelo Pasquale, Baltimore
Phillips, Raymond Edward, West Barrington, R. I.
Pittman, Frank Reber, Linglestown, Pa
Pridgeon, Charles Taylor, Baltimore
Rivkin, Elmer, Brooklyn, N. Y.
Robinson, Milton Louis, Newark, N. J.
Rosiak, Julian Frances, Baltimore
Rubin, Morris Ellis, New Bedford, Mass.
Sauer, Francis Ambrose, Baltimore
Scanlon, Joseph Henry, Providence, R. I.
Schilling, Alfred Hugo, Carlstadt, N. J.
Shoben, Gerald, Baltimore
Shulman, Marcy Lee, West New York, N. J.
Silverman, Edward, Elizabeth, N. J.
Singer, Isadore Lee, Baltimore
Skoblow, Maurice, West New York, N. J.
Snider, Hansel Hedrick, Keyser, W. Va.
Soja, Richard Alphonse, Fall River, Mass.
Stevens, Richard Andrews, Rutland, Vt.
Stone, Harvey Benjamin, Baltimore
Swain, Brainerd Foster, Newark, N. J.
Wallwork, Edward Wallace, Arlington, N. J.
Whitaker, John Harry, Balboa Heights, Canal Zone

SOPHOMORE CLASS

Alt, Louis Paul, Norristown, Pa.
Andreorio, Patrick Louis, Morristown, N. J.
Arends, Theodore George, Washington, D. C.
Baker, Edward Keefer, Jr., Pikesville
Baylin, George, Baltimore
Blanchard, Kenneth Earl, Waterbury, Conn.
Brodie, Leo, Cliffside Park, N. J.
Brotman, Irwin Norton, Baltimore
Brown, Herbert Samuel, Stamford, Conn.
Buppert, George Stuart, Baltimore
Carrill, Howard Allen, Smithsburg
Clewlow, Albert Thomas, Atlantic City, N. J.
Cooper, Herman Milton, Hackensack, N. J.
Corbin, Lance Nathaniel, Bel Air
Cronin, John William, Sparrows Point
Decesare, William Frank, Providence, R. I.
Deradorian, George David, New Britain, Conn.
DiGristine, Michael Joseph, Baltimore
Donohue, Terrence David, Baltimore
Dougherty, Charles Joseph, Wilmington, Del.
Drsata, John Joseph, Lansdowne
Evans, Marvin Ratledge, Clemmons, N. C.
Finkelstein, Louis Benjamin, Newark, N. J.
Fischer, William August, Baltimore
Gare, Morris Ralph, Newark, N. J.
George, William Augustus, Matawan, N. J.
Glaser, Isadore, New York, N. Y.
Greenberg, Alvin A., Baltimore
Harbaugh, Paul Wagner, Jr., Crisfield
Harris, Lawrence, Paterson, N. J.
Harris, Robert Wells, Scranton, Pa.
Hernandez-Borch, Jose, Santurce, Porto Rico
Hodges, Ralph Warren, Providence, R. I.
Horowitz, Morris, East Orange, N. J.
Hunter, Donald Scott, Baltimore
Impresa, Michael, Waterbury, Conn.
Inman, Byron Wallace, Mount Airy, N. C.
Jerome, Bernard, Union City, N. J.
Johnston, Samuel Burke, III, Dover, N. J.
Kalashian, Aharon M. T., Providence, R. I.
Kaufman, Vernon Delbert, Baltimore
Klotz, Otto Guido, Camden, N. J.

Kreshtool, Louis, Wilmington, Del.
Kress, William, Baltimore
Kuperstein, Charles B., Washington, D. C.
Kuta, Bruno Leon, Newark, N. J.
Lacher, Henry Arthur, Baltimore
Lasley, Frank A., Jr., Staunton, Va.
Leahy, Roland Paul, Franklin, N. H.
Levinson, Louis, Washington, D. C.
Levy, Meyer Lewis, Newark, N. J.
McCauley, Henry Berton, Jr., Baltimore
Metz, Joseph Francis, Jr., Baltimore
Meyer, Everett Nelson, Bridgeport, Conn.
Milobsky, Louis, Washington, D. C.
Mitten, Harry William, II, Balboa, Canal Zone
Moon, Robert, East Orange, N. J.
Muller, Frank Harry, Woodbury, N. J.
Myers, James Richard, Westminster
Myers, Norman Frederick, Edgewood
Nelson, Walter Josef, Providence, R. I.
Nemeroff, William, Hartford, Conn.
Niebergall, Gerald Maher, Hackensack, N. J.
Orman, Herbert, Baltimore
Paskell, Ray Sidna, Cumberland
Philpot, William Charles Christopher, Jr., Elizabeth, N. J.
Raciot, Ralph Raymond, Webster, Mass.
Reuling, Leonard Robert, Baltimore
Riddlesberger, Merklein Mills, Waynesboro, Pa.
Rogler, Wesley Edward, Weehawken, N. J.
Rosen, Harold, West Norwood, N. J.
Sabloff, Herbert, East Orange, N. J.
Schoenbrun, Alexander, Passaic, N. J.
Schwartz, Daniel David, Paterson, N. J.
Seyfert, Ernest Gustave, Stratford, Conn.
Shackelford, John Hinton, Beverlyville, Va.
Shapiro, Abe Alvin, Washington, D. C.
Shipman, Lewis Hamilton, Paxton, Mass.
Switzer, John Robert, Jr., Harrisonburg, Va.
Tarant, Leonard Joseph, Newark, N. J.
Trupp, Garrison, Baltimore
Tully, Edward Albert, West Hartford, Conn.
Tyburski, Francis Casimir, Derby, Conn.
Voss, Harald Aus, York, Pa.
Walker, James Arthur, St. Johnsbury, Vt.
Walsh, William Thomas, St. Johnsbury, Vt.
Weinstein, Herbert Milton, Union City, N. J.
Whitney, Royal Thomas, Salisbury, Vt.
Wien, Robert, Newark, N. J.
Young, James Edward, Washington, D. C.
Zea, Alvaro, Colombia, S. A.

FRESHMAN CLASS

Aks, Harry, Norfolk, Va.
Berkowitz, Bernard Robert, Baltimore.
Brown, Warner Knode, Baltimore
Buchman, Frances Faye, Danbury, Conn.
Byer, Joseph, Trenton, N. J.
Codd, John Ernest, Severna Park
Colby, Maurice Rubin, Long Branch, N. J.
Costa, Carmen Dominick, Hackensack, N. J.
Crankshaw, Allan Wilfred, Lyndhurst, N. J.
Downs, Joseph Lawrence, Jersey City, N. J.
Dreher, Mahlon Wilbur, Tobyhanna, Pa.
Duffy, Richard Philip, West Warwick, R. I.
Edwards, Melvin Fredrick, Belford, N. J.
Flynn, David Expedit, Jr., Newport, R. I.
Friedberg, Herbert, Atlantic City, N. J.
Fritts, Fletcher Loomis, Jr., Morristown, N. J.
Fulmer, James Ambrose, Jr., Fountain Inn, S. C.
Gaudreau, Raymond Joseph, Saylesville, R. I.
Glick, George Harold, Passaic, N. J.
Greenberg, Jess Jerome, Brooklyn, N. Y.
Gregoire, Gaetan George, Moosup, Conn.
Griffiths, Leonard Sharp, Baltimore
Habercam, Julian Wetmore, Baltimore
Harnedy, Clement Bernard, Providence, R. I.
Hartwell, Perley Burton, Jr., St. Johnsbury, Vt.
Hawley, Carlotta Augusta, Washington, D. C.
Haynie, Ernest Ward, Baltimore
Heuser, Victor Lemoine,, Glen Ridge, N. J.
Hilfman, Adrian Sidney, Passaic, N. J.
Hopkins, John Brewster, Chevy Chase
Jonas, Charles Saul, Atlantic City, N. J.
Julia, Jose Oscar, Santiago, Dominican Republic
Kanter, Alexander, Bordentown, N. J.
Kern, Louis Detrow, Waynesboro, Pa.
Leonard, Melvin Ralph, Chincoteague, Va.
Levickas, Vincent John, Baltimore
Levin, David, Baltimore
Ludwig, Roderick Joseph, Bridgeport, Conn.
Marburger, John Harman, Jr., Baltimore
Mathias, Craig Prescott, Waynesboro, Pa.
McKay, Frederick George, Jr., West Oak Lane, Pa.
McLean, Harry, Cumberland
Miksinski, Boleslaw Walter, Jr., Baltimore.
Miller, Robert Greer, Baltimore
Mirabella, Joseph Anthony, Jr., Long Branch, N. J.
Myers, Ernest Linwood, Frederick
Norris, John Edward, Dover, Del.
Parker, Frank Elmer, Jr., Newton, Mass.
Pereira, Louis Jerome, Jr., Holyoke, Mass.
Poster, Benjamin Leonard, Baltimore
Quillen, Paul Darwin, Ocean City
Ralph, Joseph Emile, Keyport, N. J.
Reed, Robert Alton, Milford, Del.
Reynolds, Jotham Gay, Waterbury, Conn.
Riggin, Harry Ewell, Crisfield

Ritchie, Clarence Carroll, Waynesboro, Va.
Rogers, Everett Tryon, Waterbury, Conn.
Rosen, Irving, Baltimore
Salerno, Joseph Francis, Jersey City, N. J.
Scorben, William Sanford, Bradley Beach, N. J.
Shobin, Jack, Baltimore
Shure, Maurice David, New Haven, Conn.
Simon, Morris David, Clifton, N. J.
Smith, Edwin Morgan, Torrington, Conn.
Stewart, Ford Atwood, Baltimore
Towson, Donald Hovis, Dundalk
Vigderhouse, Bernard Dave, Washington, D. C.
Yoffe, Gilbert, Baltimore
Zeiner, Raymond Edward, Torrington, Conn.
Zerdy, Alfonce Walter, New Philadelphia, Pa.
Zitkus, Joseph John, Jr., New Philadelphia, Pa.

COLLEGE OF EDUCATION

SENIOR CLASS

Brix, Marie L., Bel Air
Brokaw, Sarah K., Rising Sun
Busick, James G., Cambridge
Cash, Bernice B., Kittery, Me.
Cranford, Elizabeth V., Washington, D. C.
Curtin, Elmer P., Dundalk
Dodder, Margaret R., Hyattsville
Dulin, Blanche, Washington, D. C.
Furgang, Francis E., Duley
Gilbert, Ruth L., Washington, D. C.
Gingell, Agnes L., Berwyn
Goodrich, Hattie E., Washington, D. C.
Gravatte, Leroy T., Jr., Washington, D. C.
Griffiths, Leonard S., Baltimore
Hall, Clifton G., Washington, D. C.
Hancock, H. Stanley, Dentsville
Hasslinger, Harry E., Baltimore
Hersperger, Louise, Poolesville
Howard, Betty E., Hyattsville
Hudson, Robert F., New Haven, Conn.
Hull, Marie E., Union Bridge
Jones, Elinor I., Prince Frederick
Jump, Margaret D., Queen Anne
Kaylor, Mary M., Hagerstown
King, Ora H., Clarksburg
Lehr, H. Franklin, Bethesda
Lynham, Lucy A., Berwyn
Maxwell, Anabel deV., Marriottsville
Medinger, Mary K., Baltimore
Metcalfe, Verna M., Takoma Park
Millison, Solomon B., Baltimore
Mitchell, John R., Baltimore
Mitchell, Marguerite E., Silver Spring
Owen, Betty, Lanham
Peter, Florence E., Washington, D. C.
Ream, Vera F., Crellin
Reed, Ruth V., Baltimore
Ricketts, Mary V., Berwyn
Roop, Julia A., Union Bridge
Schmidt, Carl R., College Park
Secrist, Ford I., Easton
Shipley, Dorothy B., Westfield, N. J.
Sigelman, Harry P., Watertown, S. Dak.
Snyder, Lou C., Washington, D. C.
Steffey, Phoebe, Williamsport
Stull, Robert B., Frederick
Sudler, Olive W., Baltimore
Sugar, Sarah F., Washington, D. C.
Symons, Josephine B., College Park
Walter, J. Edward, Jr., Cambridge
Warner, Carroll F., Thurmont
Webster, Nan, Pylesville
Willoughby, Marjorie L., Hurlock
Wood, William W., Washington, D. C.
Woods, A. W., St. Louis, Mo.

JUNIOR CLASS

Alderton, Harold L., Cumberland
Archer, Mary E., Benson
Barinott, Beulah M., Washington, D. C.
Belfield, Lois M., Washington, D. C.
Benner, Willis A., Washington, D. C.
Bennett, Elizabeth L., Frostburg
Bishop, Mildred E., Washington, D. C.
Boyd, Rebecca M., Perryville
Dennis, Catherine E., Washington, D. C.
Derr, David E., Frederick
Dix, Alice L., Washington, D. C.
Dixon, Clara M., Olivet
Downs, Guy O., Williamsport
Easter, A. Elizabeth, Baltimore
Feiser, Angela M., Hyattsville
Finzel, R. Christine, Mt. Savage
Gwynn, Thomas S., Jr., Clinton
Hammack, Ernestine A., Washington, D. C.
Hammond, E. Gordon, Baltimore
Haslbeck, Lawrence A., Baltimore
Heironimus, Clark W., Washington, D. C.
Hopkins, Dorothy L., Stevensville
Jenkins, Blanch L., Frostburg
Knox, G. Irene, College Park
Knox, Josephine, College Park
Leffel, A. Elizabeth, Washington, D. C.
Mann, Carl M., Hagerstown
McLaren, Marjorie B., Washington, D. C.
Neill, Mildred F., Washington, D. C.
Nicholls, Gertrude E., Boyds

Plager, M. Lillian, Washington, D. C.
Saylor, Louise T., Walkersville
Shipley, H. B., College Park
Smith, Margaret L., Hyattsville
Snyder, Ethel, Laurel
Solomon, Mary T., Silver Spring
Spire, Helen E., Mt. Rainier
Weitzell, Everett C., Accident
Wolf, Willie, Washington, D. C.

SOPHOMORE CLASS

Allison, Conard B., Washington, D. C.
Allison, Maurine S., Washington, D. C.
Angier, Marjorie J., Takoma Park
Ashman, Jean R., Washington, D. C.
Bremen, Catherine M., Aberdeen
Buscher, Francis A., Washington, D. C.
Cissel, Eleanor F., Silver Spring
Clark, David S., Takoma Park
DeMeritt, Laurel M., Washington, D. C.
Duvall, Maude R., Rockville
Ensor, Ellen F., Sparks
Felter, Haines B., Baltimore
Fenton, Louise E., Washington, D. C.
Ford, Lloyd J., Baltimore
Graham, James B., Glenndale
Hamilton, Jean G., Hyattsville
Hannigan, Kathleen R., College Park
Hannum, Roberta M., Berwyn
Hasson, Eleanor B., Hyattsville
Heintz, Ruth L., Washington, D. C.
Hoffecker, Frank S., Jr., Sparrows Point
Ijams, E. Virginia, Baltimore
Jarrell, Temple R., Hyattsville
Johnson, Elizabeth R., Anacostia
Klingsohr, Helen F., New York City, N. Y.
Levine, Frank, Washington, D. C.
Lofgren, Olga C., Colmar Manor
Lowe, William A., Washington, D. C.
MacDonald, John A., Buffalo, N. Y.
Mansfield, William F., Westernport
McCaw, Frederick S., Rochester, N. Y.
McCullough, Frances C., Washington, D. C.
Morrison, M. Evelyn, Bennings, D. C.
Mulligan, Betty, Berwyn
Neal, Evelyn L., Hurlock
Oberry, William S., Solomons
Ordwein, Dorothy L., Hyattsville
Petrie, Richard, Winchester, Va.
Pistel, L. Lester, Hyattsville
Quinn, Edward F., Washington, D. C.
Richey, Frances, Chevy Chase
Rosenfield, Marjorie D., Mt. Rainier
Royston, Carroll W., Sparrows Point
Schwartz, Adolph, Elizabeth, N. J.
Shriver, Charlotte M., Emmitsburg
Stutsman, Hope E., Lanham
Vincent, Robert L., Seaford, Dela.
Walker, Kathryn W., Catonsville
Weigel, Louise E., Berwyn
Widmyer, Earl G., Hagerstown

FRESHMAN CLASS

Baden, Marian L., Landover
Barr, Velma B., Clarksburg
Beall, William R., Hyattstown
Beers, Willard E., Washington, D. C.
Beitler, Mary E., Relay
Bixler, Donald A., Shamokin, Pa.
Bosher, Audrey F., Riverdale
Bowen, Gertrude E., Landover
Brechbill, Edith L., College Park
Caruso, Fred E., Newark, N. J.
Conner, Virginia, Hagerstown
Cornell, Barbara E., Silver Spring
Crabbe, Alfred G., Washington, D. C.
Davis, John H., Hyattsville
Davis, Robert E., Washington, D. C.
DeLacy, Frances M., Chevy Chase
Dorsett, Frances E., Indian Head
Duvall, Wilbur I., Gaithersburg
Edmunds, Lois T., Washington, D. C.
Ehrmantraut, Doris W., Washington, D. C.
Evans, Warren R., Bladensburg
Farrell, Albert B., Washington, D. C.
Fellows, Frances A., Washington, D. C.
Friedman, David, Silver Springs
Gretz, Harry B., Washington, D. C.
Hande, Dorothy E., Baltimore
Herbsleb, Jack M., Washington, D. C.
Hickey, Routh V., Popes Creek
Hillers, Dorothy E., Washington, D. C.
Hoglund, Marion C., Takoma Park
James, William S., Hancock
Jensen, Lorida J., Washington, D. C.
Johnson, Louise S., Oxon Hill
Kaldenbach, Ruth A., Washington, D. C.
Keiser, June V., Washington, D. C.
Kenny, Catherine P., Quogue, N. Y.
Lawrence, Onalene R., Bethesda
Lee, Mildred M., Beltsville
Love, Robert L., Silver Spring
Lovell, John C., New Windsor
Lustbader, Isidore, Baltimore
Lyddane, Blanche L., Washington, D. C.
Mason, Kenneth R., Newark
Mayhew, Polly H., Hyattsville
McCurdy, David S., Silver Spring
Merrill, William E., Pocomoke City
Minion, Edward M., Newark, N. J.
Neitzey, Walter N., Jr., Hyattsville

Northrop, Everett H., Hagerstown
Olmstead, Helen G., Anacostia Station
Over, Ira E., Hagerstown
Phillips, Beatrix R., Sudlersville
Price, Orlando K., Jr., Baltimore
Reuling, Ida F., Baltimore
Richardson, Marion E., Seat Pleasant
Rouzer, Vaul E., Altoona, Pa.
Rowland, Marion J., Washington, D. C.
Sachs, George H., Clarendon, Va.
Schwartz, Mortimer, New York City, N. Y.
Scullen, Elizabeth M., Washington, D. C.
Shank, R. Karl, Hagerstown
Sherman, Charles, Baltimore
Simmel, Margaret C., Brentwood
Small, Florence F., Hyattsville
Smith, Dorothy M., Hyattsville
Sonen, Milo W., Washington, D. C.
Stiles, Edith L., Rockville
Stone, Betty L., Port Tobacco
Venn, William A., Shamokin, Pa.
Zerman, Claire E., Trenton, N. J.

UNCLASSIFIED AND PART TIME

Allen, Dolores M., Anacostia, D. C.
Berger, Louis W., Rosslyn, Va.
Blanz, Clarence T., Washington, D. C.
Burgess, Lionel, Ellicott City
Bush, Rudolph M., Washington, D. C.
Chalmers, George V., Newark, Delaware
Craig, Roberta B., Port Deposit
Fraser, Andrew, Jr., Wash., D. C.
Phillips, Rachel, Hyattsville
Seaton, Stuart L., Washington Grove
Ward, S. Chester, Paris
West, Paul A., Damascus, Ohio
Yonkers, Genevieve A., Flintstone

EXTENSION TEACHERS-TRAINING COURSES (Baltimore)

(INDUSTRIAL EDUCATION)

Acree, Samuel
Anderson, Charles R.
Arnold, Edward J.
Askew, Howard D.
Baer, Bankard F.
Ball, Harry C.
Balsam, Frank A.
Barany, Charles G.
Bartlett, Cleveland
Beck, Derwood A.
Bell, Raymond E.
Berger, Charles E.
Blackiston, James T.
Blair, Henry D.
Blight, Howard N.
Boylan, Edward J.
Boylan, William G.
Brady, Marian C.
Buchman, Thomas W.
Bull, Edgar M.
Burroughs, Atla M.
Carey, Winifred O.
Carroll, James G.
Cesky, Frank A.
Cincotta, Frances A.
Colbert, Cecile B.
Cromack, Joseph T.
Dalinsky, Isadore J.
DeCesare, Nicholas R.
Dickman, Milton J.
Diehl, George C., Jr.
Dietz, Hyman
Donelson, Raymond A.
Dudderar, Charles W.
Edwards, Paul C.
Emmart, Carey F.
Filler, W. Arthur
Fisher, George
Freimann, Catherine
Galley, Joseph N.
Gardner, Harry K.
Gilbert, Loren G.
Giles, Marie L.
Gipe, Ramon D.
Glatt, Bernard
Goldsmith, Samuel
Goldstein, Manuel Q.
Griefzu, G. Edward
Griffith, Jeanette W.
Griffin, John T.
Grimes, John J.
Gross, Charles R.
Grove, Grace C.
Haefner, William F.
Haffner, Emanuel B.
Hambleton, Richard W.
Hanna, G. Vernon
Haslup, DeWilton W.
Hensen, Henry L.
Heylmun, Stanley L.
Hitchcock, George R.
Hoffacker, George W.
Hoover, Vernon K.
Horn, John J.
Horney, Paul O.
Hubbard, Arthur M.
Hucksoll, William J.
Isabelle, J. Ovide
Jirsa, Charles
Jolly, William H.

Jones, Harvey C.
Katz, Reuben
Keczmerski, John J.
Kidd, Frank
Knox, Clarence M.
Kornblatt, Joseph
Kornblatt, Rose L.
Krausse, Harry W.
Krivitsky, Samuel
Krotee, Samuel L.
Kuehn, Peter
Kurland, Louis
Lehr, William E.
Letzer, Joseph H.
Lockett, Robert F.
Loetell, Robert F.
Longford, Robert C.
Mahannah, Erwin C.
Mallonee, Leroy T.
Martin, Carrie P.
Maynard, Christine
Maynard, John S.
Maynard, Stanley A.
McCaghey, Mildred O.
McCallister, Virginia
McCauley, Everett S.
McCoy, Otis E.
McDairmant, John
McGarvey, Maybelle P.
Mele, Hugo
Messick, Carter D.
Meyer, Arthur
Meyers, Eugenia A.
Meyers, George A.
Miller, Lucy V.
Miller, Mayfort P.
Miller, Ralph J.
Mitchell, Frances M.
Mueller, Joseph
Munschauer, Roy L.
Murphy, Ruth C.
Myers, William
Nathanson, David
Neilson, Julia M.
Neser, Bernard W.
Ningard, Paul S.
O'Neill, James E.
Packard, Albert G.
Peterson, Harold D.
Phillips, J. LeRoy
Piller, Anna E.
Powell, G. C.
Preis, John G.
Pumphrey, A. J.
Purnell, Andasia
Raabe, Herbert L.
Randall, Roland E.
Rassa, William J.
Rea, Sam W. P.
Reiter, Charles L.
Reno, Eston G.
Rich, Bessie A.
Roberts, R. J.
Robinson, H. L.
Rohde, Clarence
Scott, Charles E. P.
Sendelbach, John F.
Sheppard, Ethel C.
Siegel, Esther F.
Simon, Clara A.
Smith, Ferdinand C.
Smith, Harry E.
Smith, Lee M.
Smith, Robert L.
Smith, Willard L.
Spartana, Anthony R.
Towles, Mildred A.
Townsend, Howard E.
Trupp, Myer
Vogel, George P.
Volland, Frederick
Watkins, Robert S.
Webb, Maude S.
Webster, George L.
Weiland, Richard W.
White, Clinton E. W.
White, Walter S.
Wiegman, Elgert
Willhide, Paul A.
Winter, Ralph A.
Wolfe, Charles
Woodall, Richard C.
Young, Thomas L.
Ziefle, Howard E.

COLORED

Berry, Ida L.
Briscoe, Joseph C.
Brown, J. Alexander
Bryan, Margaret L.
Callis, J. A. B.
Callis, Nellie M.
Carr, Milton J.
Cary, Charles A.
Echols, David A.
Fisher, Gladys C.
Jackson, Pearl W.
Johnson, Carrie A.
Johnson, Tazewell A.
Jones, Reuben F.
Kyler, Margaret E.
Lewis, Gwendolyn S.
Lewis, James R.
Lockerman, Irving W.

Long, Oscar W.
Moore, Alfred V.
Moore, James E.
Rawlings, Cephas W.
Reavis, Newman B.
Reed, Milton B.
Robinson, Vernon L.
Tilghman, John
Traynham, Hezekiah
Turner, Walter T.
Washington, Howard E.
Watts, S. Reginald
Williams, Edward A.
Williams, Catherine V.
Williams, Leon W.
Woodford, Charles M.
Wright, David N., Jr.
Wynn, Vernice H.

COLLEGE OF ENGINEERING

SENIOR CLASS

Adams, John L., Mt. Rainier
Belt, Norman B., Hyattsville
Biggs, Howard M., Washington, D. C.
Bixby, Howard M., Washington, D. C.
Blanch, Edgar W., Baltimore
Bowie, John H., Berwyn
Burdick, Walter F., Hyattsville
Doyle, John T., Washington, D. C.
Dunning, Robert E., Chevy Chase
Eppley, George T., Washington, D. C.
Fisher, John T., Washington, D. C.
Fulford, William T., Baltimore
Haas, Robert T., Washington, D. C.
Hall, Owen A., Baltimore
Higgins, Horace R., Washington, D. C.
Hockensmith, George L., Pittsburgh, Pa.
Hoffman, Charles G., Eastport
Holland, Edward S., Chevy Chase, D. C.
Horton, John, Washington, D. C.
Huebsch, John P., Washington, D. C.
Isemann, Frank E., Washington, D. C.
Jackson, William R., Tilghman
Jones, Lloyd J., Dickerson
Kitchen, Charles E., Hyattsville
Lawless, Fred S., Washington, D. C.
Lawrence, Frederick V., Woods Hole, Mass.
Linkins, William H., Jr., Washington, D. C.
Lloyd, Richard L., Chevy Chase
Mathews, H. Hume, Cumberland
McGlathery, Sam E., Jr., Chevy Chase
Merrick, Charles P., Ingleside
Miller, David S., Washington, D. C.
Mothersead, Charles T., Washington, D. C.
Murdoch, Richard B., Mt. Airy
Norwood, Harold B., Washington, D. C.
Peed, Roger, Washington, D. C.
Phillips, Lewis G., Washington, D. C.
Rahe, Charles H., Baltimore
Read, Neil C., Capitol Heights
Roberts, Lawrence M., Baltimore
Scott, Robert E., Washington, D. C.
Seager, John W., Baltimore
Shinn, Stanley D., Mt. Rainier
Shrewsbury, Edmund P., Upper Marlboro
Smoot, Arnold W., Seaford, Dela.
Snell, Dale F., Washington, D. C.
Starr, William P., Hyattsville
Stephens, Allen C., Washington, D. C.
Streett, John W., III, College Park
Weber, George O., Washington, D. C.

JUNIOR CLASS

Aldridge, J. Emil, Mt. Savage
Anderson, Warren D., Sidney, Mont.
Baldwin, Richard W., Hyattsville
Bartoo, Edward R., Hyattsville
Beatty, James C., Washington, D. C.
Berry, Charles H., Landover
Biglow, Robert P., Washington, D. C.
Bogan, Joseph A., Washington, D. C.
Boger, William B., Washington, D. C.
Bowker, J. Paul, Washington, D. C.
Bruggemann, William F., Baltimore
Butterworth, Robert, Washington, D. C.
Collins, Perez H., Lanham
Cook, Joseph T., Washington, D. C.
Cutting, Fred, Washington, D. C.
Davis, Denzel E., Baltimore
Devendorf, Douglas P., Washington, D. C.
Dixon, Joseph T., Washington, D. C.
Dressel, John T., Mt. Rainier
Dye, John C., Washington, D. C.
Edwards, Theodore C., Washington, D. C.
Eyler, Donald W., Thurmont
Foltz, Charles T., Washington, D. C.
Friedman, Jacob, Washington, D. C.
Gambrill, Arthur P., Hyattsville
Gregory, Carl S., Seat Pleasant
Haas, Charles W., Kensington
Hay, Donald A., Washington, D. C.
Houston, Harold B., Dundalk
Hughes, Carl R., Kensington
Jacobson, Abraham W., New Haven, Conn.
Jones, Everette R., Germantown
Kakel, Carroll P., Towson
Kang, Bun P., Takoma Park
Kanode, Albert, Washington, D. C.
Kelly, E. Dorrance, Takoma Park

Kelly, Harry T., Takoma Park
Kreider, David, Lanham
Lank, Everett S., Washington, D. C.
Lawton, Edwin H., Washington, D. C.
Leonard, Frederick B., Chevy Chase
Linger, Roland A., Washington, D. C.
Livingston, Gordon H., Clarendon, Va.
Lore, Stanley C., Washington, D. C.
Martelo, Louis C., Towson
McIlwee, William A., Washington, D. C.
Miller, George M., Baltimore
Neale, William F., Baltimore
Nides, N. G., Centreville
Norris, George W., Annapolis
Ockershausen, Charles W., Washington, D. C.
Pfau, Carl E., Washington, D. C.
Pollock, Jack P., Washington, D. C.
Poole, Robert R., Baltimore
Raab, Carl F., Washington, D. C.
Ralston, George O., Washington, D. C.
Rohrer, Samuel H., Washington, D. C.
Ross, William H., Jr., Washington, D. C.
Shipman, John R., Ballston, Va.
Sonen, Robert W., Washington, D. C.
Steele, Justus U., Hyattsville
Steiner, J. William, Washington, D. C.
Stottlemyer, John R., Thurmont
Sullivan, Arthur L., Jr., Baltimore
Talcott, John W., Washington, D. C.
Tayman, Albert C., Upper Marlboro
Teal, Gilbert E., Pasadena
Thomas, William J., III, Sandy Spring
Turner, Howard C., Takoma Park, D. C.
van Reuth, Arthur G., Baltimore
Welch, Harmon C., Cumberland
West, James A., Jr., Anacostia, D. C.
Wilson, Thomas W., Washington, D. C.
Yager, Charles M., Baltimore

SOPHOMORE CLASS

Adair, John G., Chevy Chase
Baldwin, Karl F., Jr., Washington, D. C.
Barber, Edward, Washington, D. C.
Bartoo, Donald G., Hyattsville
Beall, Stewart H., Washington, D. C.
Beane, John R. L., Jr., Washington, D. C.
Bolz, Alfred R., Riverdale
Boucher, Charles R., Washington, D. C.
Bowers, Paul S., Hagerstown
Bronaugh, Alfred T., Washington, D. C.
Brooks, Samuel H., Washington, D. C.
Burns, Harold J., Washington, D. C.
Byrd, Harry C., College Park
Campbell, James A., Hagerstown
Chambers, Richmond D., Washington, D. C.
Chapman, Ray F., Washington, D. C.
Chick, Henry M., Washington, D. C.
Coleman, Tracy C., Washington, D. C.
Coneby, W. Harold, Washington, D. C.
Connery, Edward F., Washington, D. C.
Costinett, John H., Washington, D. C.
Cunningham, David R., Washington, D. C.
Cushen, Edward R., Hagerstown
Davis, E. Austin, Washingon, D. C.
Davis, William D., Frostburg
DeLand, Louis M., Washington, D. C.
Dorman, Edgar A., Washington, D. C.
Duggan, Frank P., Baltimore
Dunnigan, Robert A., Washington, D. C.
Duvall, Marland W., Jessup
Elmore, Lynn B., Washington, D. C.
Evans, John H., Washington, D. C.
Ewin, Robert D., Washington, D. C.
Filippone, Saverio, Washington, D. C.
Firmin, John M., Washington, D. C.
Fisher, Harry E., Dundalk
Foltz, Daniel M., Hagerstown
Galliher, Joseph H., Jr., Washington, D. C.
Gibson, Marston N., Washington. D. C.
Gleichman, John D., Cumberland
Goldman, Julius L., Washington, D. C.
Greezicki, Ignatius J., Baltimore
Grosh, Charles G., Cumberland
Harden, Guy T., Owings Mills
Harmon, William A., Mitchell Field, N. Y.
Harris, Joseph M., Washington, D. C.
Hartnell, George F., Brandywine
Hawkins, Frank J., Hyattsville
Herold, John A., Relay
Howard, Harry H., Jr., Chesapeake City
Hughes, William D., Laurel
Hunt, Kermit A., Berwyn
Hunter, Frank R., Washington, D. C.
Jahn, George W., Baltimore
Jenkins, Charles W., Washington, D. C.
Johnstone, R. Burton, Washington, D. C.
Jones, Orlin M., Washington, D. C.
Kaminski, Edward, Baltimore
Kemper, John M., Washington, D. C.
Kirby, George D., Baltimore
Kirby, Grover L., Anacostia Station, D. C.
Knight, Richard B., Edgewood
Koenig, William M., Baltimore
Lane, Richard F., Washington, D. C.
Lank, J. Collins, Salisbury
Layman, Ernest M., Frostburg
Light, Clinton G., Capitol Heights
Lipsitz, Max, Baltimore
Logan, John A., North East
Lozupone, Constantine, Chevy Chase
Ludwig, Charles H., Washington ,D. C.
Lynch, Bradford C., Washington, D. C.
Mason, Samuel, College Park
McGuire, Charles F., Capitol Heights

Messick, Robert M., Easton
Mitchell, F. Lewis, La Plata
Moorehead, Ellwood S., Washington, D. C.
Morcock, J. Edward, Washington, D. C.
Morris, Charles H., Washington, D. C.
Mossburg, Philip L., Jr., Baltimore
Nichols, Vernon R., Federalsburg
Norris, Joseph V., Baltimore
Osborne, Walt W., Silver Spring
Penrod, Adam J., Washington, D. C.
Peper, Milton C., Stemmers Run
Peratino, George S., Washington, D. C.
Pistel, Ralph R., Hyattsville
Pugh, David H., Poolesville
Pyles, Joseph H., Baltimore
Rahe, Edward P., Baltimore
Rautanen, Leo W., Dundalk
Ricketts, Hayden J., Berwyn
Robbins, Jacob W., Cambridge
Roberts, William S., Sudlersville
Robertson, Gordon W., Washington, D. C.
Robinson, Howard O., Baltimore
Rosenberger, Albert W., Hagerstown
Ruffner, Ralph W., Washington, D. C.
Russell, Charles M., Chevy Chase
Sahlin, Fred E., Annapolis
Schmidt, Henry A., Jr., Capitol Heights
Seidenberg, Elijah M., Washington, D. C.
Shoemaker, Francis D., Bethesda
Skidmore, Clinton G., Aurora Hills, Va.
Smith, John R., Washington, D. C.
Speer, Sanford T., Washington, D. C.
Tarbett, Ralph L., Takoma Park
Thomas, Allan M., Jr., Washington, D. C.
Thomas, Arthur N., Washington, D. C.
Tindal, Levy R., III, Washington, D. C.
Van Horn, Albert C., Jr., Washington, D. C.
Walker, Franklin L., Washington, D. C.
Walters, J. Fairfax, Rockville
Walton, Pelham A., Washington, D. C.
Webster, Thomas H., III, Baltimore
White, John O., Annapolis
Williams, Lee, Washington, D. C.
Williams, Woodworth S., Washington, D. C.
Willis, T. Leland, Washington, D. C.
Woolard, Thomas L., Washington, D. C.
Zimmerman, James F., Frederick
Zimmisch, C. Harding, Washington, D. C.

FRESHMAN CLASS

Adams, George E., Waldorf
Alden, William H., Silver Spring
Alenstein, Charles, Washington, D. C.
Alexander, Raymond W., Washington, D. C.
Allison, Basil B., Washington, D. C.
Armentrout, John B., Bethesda
Asero, John J., Washington, D. C.
Babcock, Richard E., Washington, D. C.
Baldwin, F. Hunter, Washington, D. C.
Bamman, Frederick C., Jr., Washington, D. C.
Bartelmes, Raymond F., Washington, D. C.
Barton, Harry H., Bethesda
Batten, Earl E., Woodridge, D. C.
Bayer, Leonard A., Ho-ho-kus, N. J.
Beveridge, Andrew B., Berwyn
Bily, Arthur J., Baltimore
Bixby, George W., Washington, D. C.
Bladen, James A., Washington, D. C.
Bollman, Roger T., Baltimore
Booth, Robert S., Jr., Washington, D. C.
Bowie, William B., Largo
Brooks, James G., Washington, D. C.
Brotemarkle, Martin L., Cumberland
Bruns, Bennard F., Baltimore
Bryan, Harry V., Washington, D. C.
Burhans, Winslow F., Hagerstown
Burns, Martin E., Towson
Carlson, J. Lawrence, Annapolis
Cassel, Roy V., Baltimore
Castle, Noel O., Washington, D. C.
Chaimson, Robert K., Washington, D. C.
Chew, Monroe G., Washington, D. C.
Chollet, Albert L., Baltimore
Christhilf, Dorsey F., Baltimore
Christhilf, John F., Baltimore
Clardy, Warren D., Washington, D. C
Constance, Harry S., Catonsville
Cornell, Edward T., Washington, D. C.
Crane, Henry A., Baltimore
Cranford, Wilson H., Washington, D. C.
Davis, Edward S., Annapolis
Davis, Leon B., Chevy Chase
Dayton, B. J., Bivalve
DeVilbiss, Preston S., Jr., Walkersville
Dexter, William M., Washington, D. C.
Dial, Herman P., Laurens, S. C.
Donahue, William J., Washington, D. C.
Drennan, Merrill W., Washington ,D. C.
Dutrow, Robert L., Gaithersburg
Fakes, Edmond T., Washington, D. C.
Fimiani, Joseph E., Washington, D. C.
Fisher, Durward F., Jr., Takoma Park
Fitzgerald, John H., Washington, D. C.
Flagg, Louis F., Takoma Park
Foley, Robert B., Washington, D. C.
Ford, William E., Washington, D. C.
Frank, Selby M., Washington, D. C.
Fraser, Edmund H., Takoma Park, D. C.
Furtney, Charles S., Cumberland
Fussell, Taylor, Ashton
Gall, Ralph G., Thurmont
Gibbs, Lewis T., Washington, D. C.
Gilbert, George E., College Park
Graeff, Willis S., Rosslyn, Va.

Gregg, Shamberger R., Baltimore
Groverman, Arthur B., Washington, D. C.
Hall, Austin J., Washington, D. C.
Hamme, Clemmy C., Jr., Baltimore
Hanes, George A., Washington, D. C.
Hansborough, Wade N., McLean, Va.
Hardie, Richard E., Washington, D. C.
Hart, William A., Washington, D. C.
Heather, Thomas E., Marydel
Hennig, Hugo M., Washington, D. C.
Hensell, Robert L., Hagerstown
Horman, Austin S., Baltimore
Howard, Henry J. M., Washington, D. C.
Hynson, Benjamin T., Washington, D. C.
Irey, Hugh W., Washington, D. C.
Jackson, Robert A., Washington, D. C.
Jenkins William G. Dundalk
Keen, William W., Washington, D. C.
Kennedy, Lynn S., Takoma Park
King, Paul L., Washington, D. C.
Knoche, Henry G., Catonsville
Langley, Theodore C., Washington, D. C.
Latimer, John W., Chevy Chase
Law, Frank D., Jr., Washington, D. C.
Leasure, William C., Silver Spring
Leatham, Charles H., Jr., Hagerstown
Levin, Henry M., Washington, D. C.
Lohr, Walter G., Baltimore
Lutz, Richard L., Riverdale
Maris, Harry B., Jr., Riverdale
Mason, Sampson D., Silver Spring
Mattingly, Allen W., Takoma Park, D. C.
Maurer, Richard H., Washington, D. C.
Mayer, Elmer L., Washington, D. C.
McChesney, Sidney A., Hyattsville
McConnell, Andrew G., Havre de Grace
McDonald, Thomas S., Perryman
McLaughlin, Thomas O., Woodbridge, N. J.
McLean, John A., Jr., Washington, D. C.
McLeod, Charles D., Edmonston
Menke, Fred H., Washington, D. C.
Mims, James R., Jr., Luray, Va.
Morrison, William L., Washington, D. C.
Morton, Charles L., Jessups
Ogle, Emerson, D. F., Catonsville
Oliver, Frank J., Washington, D. C.
Owens, James L., Federalsburg
Pagliochini, Fred J., Washington, D. C.
Park, Louis, Washington, D. C.
Parratt, Lyle F., Washington, D. C.
Pates, William A., Catonsville
Pfeiffer, Paul E., Annapolis
Phillips, Jack W., Washington, D. C.
Phillips, William S., Jr., Washington, D. C.
Pilcher, Robert M., Washington, D. C.
Plummer, Walter L., Bethesda
Polinger, Milton, Washington, D. C.
Poole, Charles W., Braddock Heights
Prochazka, Albert J., Baltimore
Quimby, Alfred P., Cordova
Randolph, John K. W., Washington, D. C.
Reading, William M., Kensington
Reichard, Donald S., Washington, D. C.
Rimmer, James S., Riverdale
Robertson, Clarence E., Pocomoke
Root, Ellis P., Annapolis
Ruppert, Edwin L., Silver Spring
Ryan, John M., Baltimore
Rys, Godfrey E., Baltimore
Sanders, Charles V., McLean, Va.
Scheibla, Louis C., Washington, D. C.
Schneider, William R., Ellicott City
Schorr, John W., Washington, D. C.
Scott, Alwood S., Washington, D. C.
Shannahan, Samuel V., St. Michaels
Shaw, G. Arthel, Washington, D. C.
Shinn, John S., Washington, D. C.
Shipley, James W., Harman
Shoemaker, John K., Washington, D. C.
Shupp, Erwin H., Washington, D. C.
Smith, Truman S., Baltimore
Steen, H. Melvin, Washington, D. C.
Strobel, Henry C., Washington, D. C.
Stutler, Delmas C., Jr., Washington, D. C.
Tucker, Joseph R., Washington, D. C.
Turner, Brent A., Washington, D. C.
Turner, John J., Jr., Silver Spring
Turner, Raymond E., Washington, D. C.
Veirs, Noble L., Jr., Silver Spring
Volland, Richard E., Washington, D. C.
von Bernewitz, Bernard F., Washington, D. C.
Waldecker, Charles D., Washington, D. C.
Ware, Logan R., Washington, D. C.
Weld, John R., Sandy Spring
White, Frank B., Lanham
Wilson, J. Gibson, Washington, D. C.
Woytych, Louis B., Annapolis
Wright, Sterling W., Washington, D. C.
Yahraes, Joseph K., Washington, D. C.

UNCLASSIFIED AND PART-TIME

Brown, William T., Hyattsville
Gotthardt, William H. S., Washington, D. C.

EXTENSION CLASSES IN MINING

BARTON CLASS

Andrews, Robert
Armold, Walter

Arnold, D. L.
Arnold, D. W.
Arnold, Harmon
Arnold, Harmon, Jr.
Ashby, Lawrence
Ashby, Randolph
Beaman, Fred
Beeman, Perry
Bradley, James
Bradley, John
Broadwater, Ralph
Brooks, Lloyd
Broy, Russell
Clark, David
Clark, Lionel
Crowe, Cecil
Custer, Charles
Custer, Ralph
Custer, Thomas
Devlin, Hugh
Fitzgerald, John
Gannon, Harmon
Gannon, James
Green, Anderson J.
Green, Elbert
Green, Raymond
Griffith, Curtis
Holler, Albert
Inskeep, W. C.
Jones, Dubois
Kiddy, Russell
Kirk, James F.
Kyle, Dewey
Kyle, Frank, Sr.
Kyle, Fred
Kyle, Harrison
Kyle, Harry
Kyle, Henry
Kyle, Reginald
Lambert, Frank
Lashbaugh, Lewis
Lashbaugh, William H.
Lyons, Irwin
Lyons, William
McDonald, K. M.
McVicker, Herbert
Miller, Alonzo
Miller, Charles
Miller, Joseph
Miller, William R.
Myers, James R.
Myers, John C.
Myers, Joseph M.
Myers, William
Perkins, Lawson
Robertson, David
Ross, Perry
Russell, Ellsworth
Schramm, Alfred
Schramm, Luther
Schriver, Silas
Shaw, Walter
Shaw, William
Thomas, George W.

CRELLIN CLASS

Ashby, B. B.
Ashby, Cecil
Ashby, C. E.
Ashby, D. L.
Ashby, D. T.
Ashby, Earnest
Ashby, Elmer
Ashby, E. L.
Ashby, Glenn
Ashby, Lee L.
Ashby, Leslie
Ashby, Stanley
Bittinger, Dewey
Bittinger, Milton
Carskadon, V. R.
Collins, Ralph
DeWitt, Ralph
DeWitt, T. A.
Durst, Charles
Forman, James
Hahn, Robert
Hayes, Carl
Hayes, J. W.
Henline, T. C.
Hinebaugh, George
Jordan, Kenneth
Lantz, Harold L.
Lee, Isaac
Lewis, Ray
Mersing, Charles
Murphy, William H.
Ream, H. E.
Roy, E. R.
Sanders, Danver
Shaffer, Edwin
Sidebottom, Charles
Sisler, Clyde
Welch, Ray

ECKHART CLASS

Allen, George
Bolt, Theodore
Brown, John
Byrnes, Gregory P.
Carter, Frank W.
Catherman, Clair

Delaney, T. Carl
Eisentrout, James G.
Festerman, Walter
Glotfelty, Robert
Gracie, Thomas
Meagher, Robert
Meagher, Victor
Miller, Walter
Montana, Joseph
Montana, Samuel
Phillips, Victor
Powers, Clarence
Robinson, John
Taylor, George
Verna, Arthur
Wagner, Paul
Williams, Joseph

FROSTBURG CLASS

Bean, Maurice
Bingaman, Ernest
Boettner, Thomas
Buckalew, Russell
Close, James H.
Condon, Thomas E.
Crowe, Edward C.
Cutter, Earl
Cutter, Paul
Drew, Edward
Durst, A. E.
Eisel, William R.
Fletcher, Clarence
Gaskill, John
Gaskill, Samuel
Hassinger, Clyde
Hitchins, William
Jenkins, Edward
Jenkins, Harold
Jenkins, Richard
Jones, William
Keister, John
MacMannis, Arch
MacMannis, H. B.
Miller, Edgar
Montana, Joseph
Montana, Samuel
Palate, Charles
Piper, James
Powers, Frank T.
Quinn, James
Rafferty, Charles
Rephorn, William H.
Seggie, Charles
Shriner, John L.
Smith, James
Smith, Robert
Stevie, Jacob
Sweitzer, Benjamin K.
Walker, George
Weimer, Stanley
Whitefield, James
Whitehead, Airey
Williams, Thomas
Winner, Raymond

KEMPTON CLASS

Bennett, George
Cook, Tony
Evans, M. O.
Havran, Paul, Jr.
Jackson, Robert
Johnson, C. T.
King, Albert
Lantz, A. L.
Lantz, Cecil
McMannis, Ray
Ridings, Robert
Ryan, Leslie
Ryan, Richard
Schell, Carl
Schell, Harold
Shillingberg, James
Steyer, Leon
Strimel, Toney
Turek, Walter
Warsaw, Pierce
Watring, Melvin
Wiegratz, August
Wiegratz, Emil

LONACONING CLASS

Abbott, William C.
Anderson, James H.
Ayres, Fred
Beeman, George
Beeman, John
Beeman, Joseph
Beeman, William
Bell, Thomas
Bradburn, John E.
Brodie, Andrew S.
Brooks, James
Buckell, George
Colmer, Peter
Cook, Notley B.
Cuthbertson, Milton
Dawson, Charles

Duckworth, Calvin
Duckworth, Gilbert
Elliot, John B.
Foot, John
Gentry, John
George, William
Gowans, George
Gowans, John G.
Grindle, Charles
Grove, Andrew N.
Izat, Robert
Jenkins, Melvin
Johnson, Leon
Johnson, Thomas
Keller, James Roy
Lashbaugh, William
Loar, George
Loar, John
Lyden, James
Lyden, Michael
Martin, William H.
McCabe, Raymond
McCormack, Thomas
McKenzie, Melvin
Merbach, John R.
Merbach, Robert
Metz, John A.
Metz, John
Miller, James A.
Miller, Melvin C.
Miller, Raymond
Moffatt, Richard, Sr.
Moffatt, Richard, Jr.
Moses, Arnold
Moses, Jacob
Morton, Linton
Neat, Alvin, Sr.
Nichol, Charles W.
Nichols, George
Nine, Charles W.
O'Rourke, Joseph
Poland, Arthur
Poland, Charles
Poland, John
Preston, Charles
Rigley, Ralph
Robertson, Thomas
Robertson, William
Ryan, Charles
Seggie, Isaac
Smith, Galen
Smith, John P.
Smith, William
Spiker, James R.
Spiker, Thomas
Staup, George
Steele, John J.
Steinbaugh, Fred
Stewart, Charles
Stuodt, Fred
Timmey, William
Wagus, Adolph
Warnick, John
Wilkes, Bradley
Williamson, Richard
Williamson, William
Wilson, George
Wilson, John W.,Jr.
Woods, Bernard
Woods, Eugene
Woods, Joseph
Woods, William

MIDLAND CLASS

Alexander, Stanley H.
Allen, James, Jr.
Brodie, Andrew S.
Bullick, Charles
Cassatt, William
Clark, John R.
Clise, Wayne
Fresh, Foster
Hawkins, Richard, Sr.
Hawkins, Richard, Jr.
Jenkins, Harry
Kenney, James
Laslo, John W.
Martin Gardner
Martin, Irvin
Martin, Matthew, Sr.
Martin, Matthew, Jr.
Martin, Matthew G.
Martin, William H.
McGowan, Michael
Merbaugh, Edward
Mills, Eugene
Morgan, Leonard
Patterson, Adam
Patterson, George A.
Seggie, Isaac
Spiker, Thomas
Spiker, William
Sulser, Harry
Thomas, James R.

MOUNT SAVAGE CLASS

Adams, George G.
Armstrong, Thomas
Blake, Joseph G.
Boore, Melvin
Boore, Norman
Boore, Raymond

Crowe, Edward C.
Fannon, Raymond
Frankenberry, Charles G.
Freida, Samuel
Henaghan, John J.
Jenkins, Harold
Jenkins, Joseph
Jenkins, Leroy
Miller, Henry
Monahan, Anthony J.
Mullaney, James
Porter, James
Stevens, Eugene
Stevens, Howard R.
Stowell, Edward
Sullivan, Patrick J.
Tillson, E. C.
Winner, Charles F.

SHALLMAR CLASS

Amtower, Olin
Aronholt, Frank
Brady, Elzie
Brady, John
Brady, Oscar
Burell, Edward
Burrell, Fitzhugh
Burrell, Kempton B.
Burrell, Wilbur
Crouse, Frank
Crouse, John
Feathers, Orville
Friend, L. O.
Gough, Carl
Hanlin, H. T.
Hoskens, William
James, J. B.
Lancaster, William A.
Lucas, William
Lyons, George
McIntyre, Albert
McIntyre, C. D.
McIntyre, Harry
McKenzie, Samuel
Newhouse, Joseph
Newhouse, Stephen
Patrick, Adam
Patton, George
Phillips, Clarence
Prando, Scott
Prando, Wolford
Pritts, Fredlock
Pyle, Homer
Rinker, John
Rohm, James
Rowan, W. H.
Sharpless, R. H.
Shillingberg, J. A.
Spiker, Conrade
Spiker, E. C.
Swansbora, Thomas
Truban, Frank
Truban, Lawrence
Turner, Edward
Warnick, Russell
Warnick, W. M.

VINDEX CLASS

Adams, Frank
Barnhouse, Roy
Beeman, Fred
Beeman, John
Beeman, Wilbur
Bolyard, Asa
Bowers, George T.
Bowers, George W.
Braskey, Frank
Braskey, John
Bryant, Roy
Burger, George W.
Butler, A. C.
Charlton, Sam
Clark, James
Crosco, Tony
Cunningham, Frank
Custer, J. W.
Custer, Vernon
D'Ambro, R.
Damon, Frank
Davis, C. W.
Davis, Henry L.
Davis, Jimmy
Davis, R. B.
Davis, R. S.
Demaco, Antonio
Dixon, Julius
Dixon, Orville
Duckworth, R. B.
Edwards, Harry
Edwards, James
Ellifritz, C. F.
Ellifritz, Ellis
Ellifritz, Ralph
Evans, Paul
Evans, William
Fike, E. W.
Fike, Wesley
Fickes, A. A.
Foster, Stanley
Frantz, Clarence
Gannoy, Thomas
Garlitz, W. L.

Gizzi, Rinaldo
Gregory, J. E.
Harris, Lewis
Harvey, Earl
Iman, Elvin
Iman, Gerald
Iman, Walter C.
Johnson, Earl
Johnson, Jesse
Johnson, Robert
Johnson, Taylor
Junkins, Jack
Kent, Earnest
Kifer, William
Kitzmiller, A. O.
Kitzmiller, Irvin
Kitzmiller, Roy
Kitzmiller, Wayman
Knotts, E. R.
Knox, Howard
Knox, Lawrence
Lewis, George
Lipscomb, James
Mackley, Gerald
Mackley, Ray
McRobie, Homer
McRobie, Lee
McRobie, Newton
McRobie, Wesley
Michaels, Raymond
Moreland, Edgar
Nine, Wilbur
Parks, F. G.
Pagh, C. L.
Pagh, Ted
Pennell, Robert
Pettit, J. M.
Pritts, George W.
Riggleman, Arthur
Rohrbaugh, C. J.
Rohrbaugh, Marvin
Rohrbaugh, Paul
Ross, Edward
Ross, Lawrence
Ross, Sam
Schaffer, Ward
Schultz, Peter
Shaffer, Albert
Shaffer, B. A.
Sharpless, Charles
Sharpless, George
Sharpless, Glenn
Sharpless, G. W.
Sharpless, Herbert
Sharpless, John L.
Sharpless, Lyle
Sharpless, R. A.
Sharpless, Wilburn
Shulin, Kosmo
Simms, Benjamin
Simms, James
Simms, Noah
Siriammi, Frank
Stark, Charles
Stark, John
Stewart, Albert
Stewart, A. G.
Stewart, Frank
Stewart, J. F.
Stewart, Marshall
Stewart, William
Stewart, William F.
Stonebreaker, G. W.
Strahin, A. F.
Strahin, E. L.
Strahin, Elmer
Strahin, P. R.
Strahin, Ray
Strahin, V. M.
Sweitzer, Edward
Sweitzer, George
Tasker, A. E.
Tasker, Cassel
Tasker, Curry
Tasker, Elmer
Tasker, John
Tasker, O. W.
Tasker, R. H.
Teti, Vincenzo
Trowbridge, H.
Vertelka, Peter
Warnick, L. O.
Wilson, M. H.

GRADUATE SCHOOL

Alexander, Lyle T., College Park
Anderson, Davis, Baltimore
Anderson, William H., Worcester, Mass.
Anzulovic, Bertha M., Berwyn
Applefeld, Irving, Bartimore
Ashworth, George F., Kensington
Bailey, Walrace K., Woodleaf, N. C.
Baker, William B., Baltimore
Ball, Cecil R., Hyattsville
Barnes, M. Grace, Washington, D. C.
Bartram, M. Thomas, College Park
Basil, John L., Annapolis
Bauer, John C., Baltimore
Bell, Wilmer V., Baltimore
Bernard, Madeline M., Washington, D. C.
Berry, Myron H., College Park
Besley, Arthur K., Riverdale
Bewley, John P., Berwyn
Binkley, Charles H., Hyattsville
Bishop, Virgil B., Carmicnael
Bixler, Evelyn T., Washington, D. C.
Blaisdell, Dorothy J., Washington, D. C.
Bliss, Katharine S., Takoma Park
Bond, Ridgely B., Jr., Baltimore
Bowers, Arthur D., Hagerstown
Boyles, William, Westernport
Bragaw, Charles, Washington, D. C.
Brannon, David H., Hoquiam, Wash.
Bray, Harriet E., Hyattsville
Bridgeforth, Roberta E., Hampton, Va.
Brown, Russell G., Morgantown, W. Va.
Bruening, Charles F., Baltimore
Bryan, Arthur H., Baltimore
Burger, John R. M., Jr., Hagerstown
Burslem, William A., Hyattsville
Burton, Fred, Cumberland
Burton, John O., Windom, Minn.
Busbey, Ruth L., Laurel
Buzzard, Robert W., Washington, D. C.
Campbell, William P., Hagerstown
Carlson, Elmer T., Washington, D. C.
Cary, Roderick C., Maywood, Ill.
Casey, Lillian L., Takoma Park
Chandler, Robert F., Jr., Gloucester, Me.
Cissel, C. Wilbur, Washington, D. C.
Clayton, Harry K., Mt. Rainier
Cochran, Doris M., Hyattsville
Coddington, James W., Friendsville
Coe, Johnnie B., Washington, D. C.
Cohen, Morris M., Hyattsville
Cooke, Virginia B., Washington, D. C.
Cooley, Franklin deL., Baltimore
Cox, Benjamin F., Takoma Park
Crandall, Bowen S., Chevy Chase
Crentz, William L., Washington, D. C.
Crosthwait, S. L., Hyattsville
Cwalina, Gustav E., Baltimore
Daiker, Barbara V., Washington, D. C.
Davis, Charles R., Montgomery, Ala.
Davis, Thomas G., Frostburg
Day, Sister Theodora, Washington, D. C.
DeBoy, Dora F., Solomons
DeDominicis, Amelia C., Baltimore
Dietel, Mary B., Takoma Park
Ditman, Helen C., Hyattsville
Ditman, L. P., Hyattsville
Dowd, Oscar J., Hartford, Mich.
Dunnigan, Arthur P., Pylesville
Duvall, Harry M., Landover
Dyott, William H., Baltimore
Eaton, Orson N., Hyattsville
Eiseman, John H., Chevy Chase
Ericson, Ruth O., Riverdale
Ernst, Norma LeV., Takoma Park
Etienne, Wolcott L., Berwyn
Evans, William E., Jr., Washington, D. C.
Everson, Emma M., Hyattsville
Faber, John E., Jr., College Park
Faber, Samuel P., Washington, D. C.
Farley, Richard F., Takoma Park
Ferguson, Harry F., Jr., Baltimore
Figge, Frank H., Silver Cliff, Colo.
Finn, Bernice K., Washington, D. C.
Fisher, Paul L., Washington, D. C.
Fisher, Raymond A., Victoria, B. C.
Fitzhugh, Dorothea W., College Park
Foss, Noel E., Clear Lake, South Dakota
Fox, Abraham L., Washington, D. C.
France, Louise S., Muncie, Ind.
Frazier, William A., Carrizo Springs, Texas
Frazier, Willis T., Washington, D. C.
Fritz, James C., Berlin, Pa.
Fulton, Harry R., Washington, D. C.
Garreth, Ralph, College Park
Gibson, Arthur M., Baltimore
Giffen, Robert C., Washington, D. C.
Gilbert, Howard W., Riverdale
Ginsburg, Benjamin H., Baltimore
Godfrey, Albert B., Branchville
Goldstein, Samuel W., Baltimore
Goss, Donald M., Peach Bottom, Pa.
Gould, J. Glenn, Baltimore
Grau, Fred V., Benningon, Nebr.
Greenberg, Harry L., Baltimore
Haines, Helena J., Hyattsville
Hall, Walter J., Hyattsville
Hamilton, Edgar H., Takoma Park
Hamilton, Joseph J., Hyattsville
Hammerlund, Don F., Washington, D. C.
Hanna, W. Miles, White Hall
Haskins, Willard T., Binghamton, N. .Y
Hatfield, M. R., Washington, D. C.

Haut, Irvin C., Spokane, Wash.
Hay, John O., Kensington
Henderson, Perlie deF., Takoma Park
Hendricks, Robert W., College Park
Herring, Margaret T., Hyattsville
Hersberger, Arthur B., Barnesville
Heuberger, John W., Warren, R. I.
Hoffmaster, Mary C., Baltimore
Holtgreve, Karl H., Baltimore
Hookom, Don W., Mt. Pleasant, Iowa
Hornibrook, Floyd B., Washington, D. C.
Horsey, Idella S., Crisfield
Hostetter, Alice W., Washington, D. C.
Houchen, Grace, Washington, D. C.
House, Bolton M., College Park
Houston, David F., Washington, D. C.
Hull, J. Shelton, Jr., Halethorpe
Hunt, William H., Baltimore
Ichniowski, Casimer T., Baltimore
Ingersoll, Mary M., Chestertown
Jacobs, Marion L., Chapel Hill, N. C.
Jacobsen, Robert P., Crete, Nebr.
Jaeggin, Richard B., Baltimore
Jarrett, Dorothy L., Washington, D. C.
Jenkins, Harold L., Chevy Chase
Jenkins, Harry, Washington, D. C.
Jones, Minor C. K., Owings Mills
Kaler, Frank H., Donovan, Ill.
Kanagy, Joseph R., Volant, Pa.
Karganilla, Leopoldo T., La Union, P. I.
Katzman, Morris, Washington, D. C.
Kennedy, George A., Riverdale
King, John R., Bloomington, Ind.
King, Tom C., Alexandria, Va.
Kline, Gordon M., Washington, D. C.
Knowles, DeWitt C., Jr., Washington, D. C.
Koster, John, Hyattsville
Kruger, John H., Beltsville
Lagasse, Felix S., Newark, Dela.
Lamar, Austin A., Sandy Spring
Likely, Robert H., Savage
Lloyd, Daniel B., Glenndale
Lloyd, Mazie C., Glenndale
Lumsden, David V., Washington, D. C.
Lutz, Jacob M., Washington, D. C.
Madigan, George F., Washington, D. C.
Manchey, L. Lavan, Glen Rock, Pa.
Marriott, Haskins, Raleigh, N. C.
Marth, Paul C., College Park
Matthews, Earle D., Homestead, Fla.
McClurg, Gregg H., Washington, D. C.
McDonald, Emma J., Washington, D. C.
McNutt, Agnes E., Crawfordsville, Ind.
McVey, Warren C., Riverdale
Meckling, Frank E., Takoma Park
Metcalfe, Howard E., Takoma Park
Miller, Dorothy J., Washington, D. C.
Miller, H. L., Bethesda
Miller, Ruth, Takoma Park
Millett, Sylvia, Pen-Mar
Mitchell, Mary C., Washington, D. C.
Mong, Lewis E., Chevy Chase
Moore, Clara W., St. Anthony, Idaho
Moore, Daniel S., Bishop
Munger, Francis, Takoma Park
Munsey, Virdell E., Washington, D. C.
Musser, Ruth, Baltimore
Nelson, Ole A., Clarendon, Va.
Nickels, Frank F., Casco, Va.
Oakley, Margarethe S., Baltimore
Oberlin, Elisabeth S., Jessups
Oldenburg, Grace M., Hyattsville
Painter, Elizabeth E., New Freedom, Pa.
Parker, Roland J., Baltimore
Parks, John J., Scottsboro, Ala.
Peach, Preston L., Mitchellville
Pease, Alfred A., Steelton, Pa.
Pierce, Clare William, Grand Valley, Pa.
Powell, Burwell B., Hyattsville
Price, David G., Washington, D. C.
Purdum, William A., Baltimore
Pyles, Charlotte E., Frederick
Quigley, George D., College Park
Reed, Helen, College Park
Robertie, George, Dorchester, Mass.
Roberts, Bertran S., Westernport
Ronkin, Edward A., Brooklyn, N. Y.
Rose, William G., Salt Lake City, Utah
Rosen, Harry, Washington, D. C.
Rubinstein, Hyman S., Baltimore
Russell, William E., Baltimore
Santinie, Maria A., Burtonsville
Sargent, Eloyse, Washington, D. C.
Shepherd, Matson W., Berwyn
Sherman, Louis L., Baltimore
Shrader, Sterl A., Marlinton, W. Va.
Shulman, Emanuel V., Baltimore
Siegler, Edouard H., Takoma Park
Siegler, Eugene A., Takoma Park
Simonds, Florence T., Riverdale
Slama, Frank J., Baltimore
Smith, Dorothy E., Washington, D. C.
Smith, Frank R., Church Creek
Smith, Max A., Myersville
Smith, Thomas B., Bedford, Pa.
Smith, W. Harold, Washington, D. C.
Spadola, John M., Worcester, Mass.
Spies, Joseph R., Wentworth, S. Dak.
Sproat, Ben B., Vincennes, Ind.
Stanley, Ruth, Takoma Park
Steinbauer, Clarence E., Takoma Park
Stier, Howard L., Oakland
Stimpson, Edwin G., Washington, D. C.
Stirton, Alexander J., Washington, D. C.
Strasburger, Lawrence W., Hyattsville
Stuart, Neil W., Clarksville, Mich.

Stubbs, James J., Washington, D. C.
Swingle, Millard C., Takoma Park
Taylor, Charlotte M., College Park
Teitelbaum, H. A., Brooklyn, N. Y.
Thompson, Ross C., Washington, D. C.
Thummel, Edith C., Washington, D. C.
Tompkins, Charles B., Washington, D. C.
Tompkins, Mary E., Washington ,D. C.
Varela, Agatha M., Washington, D. C.
Veitch, Fletcher P., Jr., College Park
Walkup, H. H., Washington, D. C.
Walls, Edgar P., College Park
Ward, Clara F., Owings
Watt, Ralph W., Washington, D. C.
Weiland, Glenn S., College Park
Welborn, John P., State College, Miss.
Wellman, Thelma M., Takoma Park, D. C.
Wheelan, Frank N., Washington, Iowa
White, Clark, College Park
Williams, Loris E., Takoma Park, D. C.
Williams, Richard J., Cumberland
Willingmyre, Daniel W., III, Berwyn
Wohlgemuth, George F., Annapolis
Woods, Mark W., Berwyn
Wright, Thomas G., Baltimore
Yates, Janney M., Alexandria, Va.
Zervitz, Max M., Baltimore

COLLEGE OF HOME ECONOMICS

SENIOR CLASS

Bonthron, M. Elizabeth, Baltimore
Byrd, Vesta L., Crisfield
Cannon, Bert E., Seaford, Dela.
Claflin, Dorothy A., College Park
Coleman, Wilma, Hyattsville
Essich, Mary A., Westminster
Hughes, Esther F., Washington, D. C.
Hunt, Ruth A., Hyattsville
Lane, Dorothy T., Washington, D. C.
Lines, Helen W., Kensington
Miller, Evelyn F., Westernport
Miller, Mary M., Grantsville
Nelson, Ruth D., Washington, D. C.
Reed, Rosa L., Washington, D. C.
Reynolds, R. Selena, North East
Shepherd, Claire, Berwyn
Smaltz, Ann E., Washington, D. C.
Welsh, Sarah F., Baltimore
White, Margaret N., Princess Anne

JUNIOR CLASS

Arrow, Loretta C., Branchville
Behrend, Erna M., Washington, D. C.
Brigham, Doris R., Landover
Farnham, Charlotte E., Washington, D. C.
Fritch, Esther M., Cumberland
Gilbertson, Gertrude E., Bladensburg
Jarboe, Elga G., Baltimore
Lanham, Clarice E., College Park
Lutes, Mildred E., Silver Spring
McFerran, Helen E., Cumberland
Mister, Amy, Baltimore
Moody, Elsa N., Washington, D. C.
Nutter, Mary M., Cumberland
Oberlin, Elise V., Silver Spring
Palmer, Eloise A., Chester
Pusey, A. Louise, Princess Anne
Reinohl, E. Louise, Hyattsville
Roe, Catharine, Port Deposit
Smith, Lelia E., Hyattsville
Storrs, Dorothy H., Linthicum Heights
Strasburger, Minna E., Baltimore
Van Slyke, Gretchen C., Washington, D. C.
Wood, Ethelyn S., Baltimore
Youngblood, Amber R., Washington, D. C.

SOPHOMORE CLASS

Adams, Mary E., Silver Spring
Binswanger, Elizabeth F., Baltimore
Burslem, Ruth E., Hyattsville
Buschman, A. Betti, Leonia, N. J.
Caruthers, Bertie L., Riverdale
Ewald, Mabel E., Mt. Savage
Gibbs, Emma C., Hyattsville
Gurney, Ruth H., Washington, D. C.
Hardy, Margaret F., Kensington
Hester, J. Virginia, Washington, D. C.
Hill, Ruth L., Laurel
Hoage, Norma R., Washington, D. C.
Jack, Sarah G., Rolandville
Jacob, Felice E., Pikesville
Langrall, Margaret E., Baltimore
Loeffler, Ernestine M., Laurel
McManus, Irma, Cockeysville
Moore, Catherine M., Bishop
Norman, Julia A., Stevensville
Pierce, Dorothy O., Baltimore
Riedel, Erna M., Gambrills
Soper, Agnes P., Washington, D. C.
Wackerman, Maybelle I., Riverdale
White, Marian P., Washington, D. C.
Wollman, Helen E., Baltimore

FRESHMAN CLASS

Aitcheson, Catherine E., Laurel
Baldwin, Dorothy A., Washington, D. C.
Benedict, Frances, Silver Spring
Berry, Mildred L., Landover
Bladen, Evelyn R., College Park
Bladen, Jewel A., College Park
Booth, Emma L., Brunswick
Boyd, Elinor M., Pittsburgh, Pa.
Buckley, Ann H., Baltimore
Carlton, Mildred E., College Park
Chance, Melvia, Gambrills
Claflin, Mary J., College Park
Crabbe, Jeanette H., Chevy Chase
Cross, Mary R., Queenstown
Dahn, Nona E., Chevy Chase
Dahn, Wilma E., Chevy Chase
Dunn, Frances E., Washington, D. C.
Fineran, Eileen M., Washington, D. C.
Fouts, N. Rebekah, Washington, D. C.
Geary, Julia M., Baltimore
Gibbs, Helen B., Hyattsville
Head, Julia E., Riverdale
Howell, Ruth B., Berlin
Kerstetter, Winifred D., Lanham
Lane, Margaret H., Goldsboro
Lowe, Dorothy E., Washington, D. C.
Marsden, Harriet E., Chevy Chase
Maxwell, Elizabeth, Berwyn
Merritt, Jeanette R., Chevy Chase
Norris, Marguerite M., Chevy Chase
Peter, Mary L., Silver Spring
Philpitt, Ida L., Washington, D. C.
Rea, Florence R., Washington, D. C.
Riddlesberger, May K., Waynesboro, Pa.
Taylor, Mary V., Perryman
Terhune, Kathryn M., Washington, D. C.
Tuttle, Merza L., Baltimore
Vogt, Carolyn L., Washington, D. C.
Wellington, Ruth E., Takoma Park
White, Virginia L., Washington, D. C.
Wood, Marian L., Brentwood
Wright, Anita B., Jessup
Zimmerman, Mildred F., Baltimore

UNCLASSIFIED AND PART-TIME

Cotterman, Mae Y., College Park
Griffis, Sybil H., Washington, D. C.
Miller, Frances L., Washington, D. C.

SCHOOL OF LAW

FOURTH YEAR EVENING CLASS

Brown, David Stanley, Baltimore
Clingan, Irvine Clayton, Boonsboro
Crane, Charles, Baltimore
Feldman, William Taft, Baltimore
Langdon, Paul Horace, Baltimore
Maggio, Rose Elizabeth, Baltimore
Monsman, Gerald, Baltimore
Prendergast, John Gilbert, Baltimore
Silverberg, Morris Morton, Baltimore
Spector, Samuel Alexander, Baltimore

THIRD YEAR DAY CLASS

Abell, Robert Louis, Baltimore
Carrico, Rudolf Ambrose, Bryantown
Castleman, Ely Albert, Baltimore
Cooper, Franklin Kent, Salisbury
Crothers, Omar Derotheus, Jr., Elkton
Gomborov, A. David, Baltimore
Green, Mary Clare Maccubbin, Annapolis
Gump, George, Baltimore
Haley, George Wentworth, Baltimore
Harris, Charles David, Baltimore
Johnson, Thomas Francis, Snow Hill
Kelly, John Francis, Baltimore
Klaff, Jerome Leonard, Baltimore
Loker, William Alexander, Leonardtown
McIntosh, Joseph Rieman, Towson
Mitchell, John Hanson, Baltimore
Parkhurst, George Veasey, Baltimore
Scott, William Henry, Ocean City
Sebald, William Joseph, Baltimore
Shapiro, Herman, Baltimore
Sullivan, Vance Richmond, Baltimore
Truitt, May Hatton, Salisbury
VanSant, Warren Hyland, Greensboro
Warfel, Robert Warren, Havre de Grace
Williams, Estelle Porn, Baltimore

THIRD YEAR EVENING CLASS

Colvin, Joseph, Baltimore
Councill, Catherine Rowe, Halethorpe
Feeney, Aquin Paul, Granite
Goldstein, Albert, Baltimore
Hampton, John Henry, Baltimore
Hughes, Thomas Alexander, Baltimore
Knadler, Robert Warren, Halethorpe
Mallonee, Lester Earl, Laurel
McKay, Douglass Alexander, Baltimore
Medwedeff, Jack Lloyd, Baltimore

Needle, Harry K., Baltimore
Peard, Frank Furnival, Baltimore
Penn, Austin Emerson, Baltimore
Silverberg, Williard I. Baltimore
Simmonds, Carroll LeRoy, Baltimore
Skutch, Robert Frank, Jr., Baltimore
Stengel, Lewis Edward, Dundalk
Thaiss, J. Nuelsen, Baltimore
Willis, Samuel Hood, High Point, N. C.
Wise, James Alfred, Dover, Del.

SECOND YEAR DAY CLASS

Abbott, Charles Favour, Franklin, Mass.
Ahroon, Lester Allen, Baltimore
Aidt, Norbert John, Anneslie
Brice, Richard Tilghman, III, Annapolis
Crane, Francis Selden, Baltimore
Dryden, Joshua Lemuel, Salisbury
Gordon, Alexander, III, Baltimore
Gott, Winson Gilbert, Jr., Annapolis
Harlan, Edwin, Baltimore
Harlan, Joseph, Baltimore
Harrington, Calvin, Jr., Cambridge
Hoff, Stanford Ivan, Westminster
Jenifer, Walter Mitchell, Loch Raven
Knapp, Charles Henry, Jr., Baltimore
Leonard, Richard Black, Baltimore
Mazzei, John Salvatore, Brooklyn, N. Y.
Oliphant, Charles Albert, Baltimore
Patro, Joseph Stanislaus, Baltimore
Pennewell, Noah Ames, Snow Hill
Smith, Philip B., Baltimore
Sodaro, Anselm, Baltimore
Williams, Charles Watkins, Glyndon
Wrightson, Samuel Hastings, Claiborne

SECOND YEAR EVENING CLASS

Barker, Charles Bates, Baltimore
Brower, Edmund David, Lutherville
Chertkof, George, Baltimore
Cockrell, Francis Irwin, Baltimore
Cohen, Bernard S., Baltimore
Dowell, George Howard, Baltimore
Dulin, Wilbur R., West Annapolis
Finnerty, Joseph Gregory, Baltimore
Freedman, Abraham J., Baltimore
Galvin, Joseph Mannion, Baltimore
Gardiner, Norman Bentley, Jr., Riderwood
Getz, Louis, Baltimore
Kenney, Francis Louis, Jr., Baltimore
Kerlin, Thomas Henry, Baltimore
Kravetz, Louis Behr, Baltimore
Lawrence, John Heyer, Baltimore
Lotz, John Bernard, Jr., Baltimore
Lowe, Edwin William, Baltimore
Mayfield, Thomas Hunt, Jr., Halethorpe
McCormick, Francis Xavier, Baltimore
McLaughlin, John Dennis, Baltimore
Oakley, Columbus Knight, Baltimore
Parks, Zadoc Townsend, Jr., Baltimore
Piel, Herman Davis, Baltimore
Schilpp, Ernest Allen, Baltimore
Smith, Julius Lundie, Jr., Annapolis
Smith, Stewart Lee, Baltimore
Topper, Gerald Edward, McDonogh
Watchorn, Carl Williams, Baltimore
Wellmann, William Ernest, Jr., Baltimore
White, Edgar Alfred, Annapolis

FIRST YEAR DAY CLASS

Bassing, Milton Leonard, Bristol, R. I.
Blake, William French, Baltimore
Carlin, Richard McCormick, Baltimore
Carpenti, Peter John, Cumberland
Claggett, Thomas West, Jr., Baltimore
Epstein, Benjamin Francis, Centreville
Forsythe, John Royden, Baltimore
Gill, Robert Lee, Jr., Baltimore
Haile, Walter Reckord, Towson
Harris, Nathan Manuel, Baltimore
Henry, Thomas Hughlett, Jr., Easton
Invernizzi, Fred William, Baltimore
Jones, Laurance Bateson, Ruxton
Kelbaugh, Edward Tilden, Baltimore
Kenney, Thomas James, Baltimore
Kirby, John Ignatius Carroll, Baltimore
Lotz, Philip Lee, Ellicott City
Lung, Clarence Wesley, Smithsburg
Manekin, Bernard, Baltimore
Miles, Charles Howard, Baltimore
Miller, Sydney Boroh, Baltimore
Mylander, Walter Charles, Jr., Cockeysville
Perman, Morris Louis, Baltimore
Reeder, Robert Carey, Jr., North East
Ritz, John Henry, Catonsville
Rudolph, George Griffin, Baltimore
Sanford, John Lowry, Jr., Berlin
Smith, Robert Lee, Baltimore
Stirling, Campbell Lloyd, Baltimore
Storm, Edward Daniels, Frederick
Storrs, Davies Rind, Baltimore
Sykes, David Samuel, Baltimore
Vauthier, David Woodward, Millersville
Wachter, Frank Charles, Baltimore
Weaver, Milton Edward, Jr., Baltimore
Welsh, Thomas Hammond, Jr., Hyattsville
Wigginton, Robert E., Leonardtown
Woodward, Wallis, Towson
Yocum, Edmund Farley, Baltimore

FIRST YEAR EVENING CLASS

Bernstein, Marcus M., Jr., Baltimore
Blaul, Richard Ferdinand, Cumberland
Cohen, Elbert, Baltimore
Cooney, Alvin Joseph, Baltimore
Engeman, George Hyde, Baltimore
Fitzgerald, John Patrick, Baltimore
French, Ward Monroe, Catonsville
Frey, Walter Albert, Jr., Baltimore
Gardner, Kenneth Elmer, Brooklyn
Haymond, Orpah C., Baltimore
Henry, Edward Beverly, Baltimore
Hoff, Snowden, Jr., Baltimore
Holland, Milton Lewis, Baltimore
Horak, Joseph Gregory, Baltimore
Hurlock, C. Harlan, Jr., Baltimore
Kronsberg, Milton Wilbert, Baltimore
Lurz, Thomas Albert, Baltimore
Macaluso, Samuel James, Annapolis
McCormack, Bernard Ambrose, Baltimore
Miller, Irvin, Baltimore
Miller, Thomas Lawrence, Baltimore
Moran, Francis Robert, Baltimore
Moran, John Joseph, Jr., Baltimore
Neidhardt, John Wendel, Baltimore
Nordenholz, Fred Albert, Baltimore
Parks, Wallace Judson, Baltimore
Patrick, John de Valangin, Baltimore
Schlutter, Milton Whitney, Baltimore
Schmidt, Florian, Baltimore
Sheridan, John Wilford, Towson
Shipley, Roland Curry, Baltimore
Strode, Aubrey Ellis, Jr., Fort George Meade
Tippett, James Royall, Jr., Baltimore
von Klatt, Carl Francis, Baltimore
Waidner, Robert Allen, Baltimore
Wood, Howard Graham, Baltimore

UNCLASSIFIED

Grillo, Vincent Richard, Annapolis
Melvin, Howard, Jr., Baltimore
Schmidt, Emil G., Baltimore
Wolf, Irvin Otto, Baltimore

SCHOOL OF MEDICINE

GRADUATE STUDENTS

Evans, William Ellsworth, Jr., Chevy Chase, D. C.
Figge, Frank Henry John, Silver Cliff, Colo.
Manchey, L. Lavan, Glen Rock, Pa.
Musser, Ruth Dunbracco, Baltimore
Painter, Elizabeth Edith, New Freedom, Pa.
Rubinstein, Hyman Solomon, Baltimore
Teitelbaum, Harry Allen, Brooklyn, N. Y.

SENIOR CLASS

Aaron, Harold Henry, New York, N. Y.
Baker, George Stansbury, Pikesville
Baldwin, Kenneth Malison, Laurel
Barnhardt, Albert Earl, Concord, N. C.
Beanstock, Sam, Brooklyn, N. Y.
Becker, Martin, East Orange, N. J.
Bellin, David Elias, East Elmhurst, L. I., N. Y.
Bernstein, Joseph Cecil, Baltimore
Blitzman, Louis, New York, N. Y.
Bowman, Harry Daniel, Baltimore
Cohen, Marvin Meyer, Paterson, N. J.
Comegys, Richard Williamson, Millington
Diehl, Harold Clayton, Grantsville
Di Stasio, Frank, New Haven, Conn.
Drucker, Victor, New York, N. Y.
Emanuel, Meyer, Brooklyn, N. Y.
Espinosa, Manuel, Rio Piedras, Porto Rico.
Etkind, Meyer George, New Haven, Conn.
Fineman, Jerome, Baltimore
Fox, Haskell Wright, Troutman, N. C.
Franklin, Frank Anthony, Orange, N. J.
Garrison, Ralph Bernard, Burke, N. C.
Goldman, Alexander Blodnick, Brooklyn, N. Y.
Goldman, Meyer Leo, Arverne, L. I., N. Y.
Gorrell, James Stanley, Bel Air
Griggs, William Lemuel, Jr., Charlotte, N. C.
Harris, Earle Harold, New York, N. Y.
Hedgpeth, Louten Rhodes, Lumberton, N. C.
Hemminger, Earl Wentworth, Somerset, Pa.
Highstein, Gustav, Baltimore
Himelfarb, Albert Joseph, Baltimore
Hoover, William Alonzo, Crouse, N. C.
Hurwitz, George Hillel, Hartford, Conn.
Hyman, Joseph Jay, Broolyn, N. Y.
Hyman, Morris, Stamford, Conn.
Kenler, Myron Lewis, Baltimore
Kent, Ann Patrick, Washington, D. C.
Keown, Lauriston Livingston, Baltimore
Kimmel, Charles, Newark, N. J.
Kochman, Leon Arthur, Cumberland
Konigsberg, Wilfred Kane, New York, N. Y.
Lentz, George Ellard, York, Pa.
Lifland, Bernard Daniel, Newark, N. J.
Lowman, Milton Edward, Baltimore
Malinoski, Wallace Henry, Baltimore
Matheke, George Adolph, Newark, N. J.
Miller, Benjamin, New York, N. Y.
Miller, Meyer George, Brooklyn, N. Y.
Moore, James Irving, Baltimore

Novenstein, Sidney, Milford, Conn.
Osserman, Kermit Edward, New York, N. Y.
Peer, George Foster, Grafton, W. Va.
Pico, Jose Teodoro, Coamo, Porto Rico
Racusin, Nathan, Baltimore
Robinson, Daniel Robert, Brooklyn, N. Y.
Rosenberg, Arthur, Brooklyn, N. Y.
Rosenfeld, David Herman, Baltimore
Rubin, Samuel S., Baltimore
Rutland, Hedley Ethelbert, York, Pa.
Sager, Harold, Bayonne, N. J.
Scarborough, Asa Mark, Greenville, S. C.
Schiff, Hyman, Annapolis
Schiff, Joseph, Annapolis
Schindler, Blane Markwood, Cumberland
Schneiman, Maurice Harris, Philadelphia, Pa.
Schochet, George, Baltimore
Schwartz, Alec Robert, Pittsburgh, Pa.
Schwartz, Paul, Baltimore
Shea, Cornelius Joseph, Bridgeport, Conn.
Shinn, George Clyde, Concord, N. C.
Smith, Ashby Wade, Lynchburg, Va.
Stackhouse, Howard, Jr., Riverton, N. J.
Stern, Maurice Lee, Brooklyn, N. Y.
Szule, Stephen, New Brunswick, N. J.
Taylor, Clifford Morrison, Westminster
Thumin, Mark, New York, N. Y.
Turano, Leonard Francis, Brooklyn, N. Y.
Van Metre, John Lee, Shepherdstown, W. Va
Way, Samuel Eason, Beaufort, N. C.
Weisman, Samuel, Baltimore
Wieciech, Michael Joseph, Baltimore
Wolbert, Frank, Baltimore
Woodard, Barney Lelon, Kenly, N. C.
Woodford, Thomas Larry, Philippi, W. Va.
Zager, Saul, Newark, N. J.

JUNIOR CLASS

Abramovitz, Leonard Jerome, Baltimore
Adams, Thurston Ray, LaGrange, N. C.
Austraw, Henry Harrison, Dundalk
Bayer, Ira Eugene, Jr., Baltimore
Bayley, George Schwing, Yardley, Pa.
Berenstein, Stanley Harry, Baltimore
Blum, Louis Vardee, Wilmington, Del.
Brodey, David Franklin, Brooklyn, N. Y.
Burgtorf, George Edward, Jr., Brooklyn
Campbell, Edgar Thrall, Hagerstown
Caples, Delphin Delmas, Baltimore
Carliner, Paul Elliott, Baltimore
Cassidy, William Adrian, Bangor, Me.
Coates, Stephen Paul, Baltimore
Cohen, Lawrence Jack, Baltimore
Cooper, Jules, Atlantic City, N. J.
Dietz, Joseph Robert, Trenton, N. J.
Diener, Samuel, Baltimore
Dorman, George Edward, Dormont, Pa.
Downey, Regis Fallon, Greensboro, Pa.
Dreher, Robert Hering, Kutztown, Pa.
Dunbar, John Charles, Pittsburgh, Pa.
Echols, John Edward, Richwood, W. Va.
Farr, Robert Wilbur, Millington
Fearing, William Lumsden, Elizabeth City, N. C.
Feldman, Leon Henry, Baltimore
Finegold, Joseph, Carnegie, Pa.
Gaskel, Jason Howard, Baltimore
Gelb, Jerome, Newark, N. J.
Gelman, Sidney, Paterson, N. J.
Goldstone, Herbert, Baltimore
Goodhand, Charles Luther, Chester
Goodman, Howard, Baltimore
Gordon, Joseph, Baltimore
Gutman, Isaac, Baltimore
Hanigsberg, Murray Joseph, Brooklyn, N. Y.
Healy, Robert Fairbank, Glyndon
Hoffman, Edward Sayer, Rochester, N. Y.
Horan, William Henry, Scranton, Pa.
Howard, William Lawrence, Federalsburg
Hummel, Leonard Malcolm, Baltimore
Hunt, Josiah Arnold, Hyattsville
Hurwitz, Abraham Ben, Baltimore
Insley, Philip Asbury, Cambridge
Janousky, Nathan Bonny, Baltimore
Jerardi, Joseph Victor, Baltimore
Johnson, Thorwald, San Francisco, Calif.
Kafer, Oscar Adolph, Edward, N. C.
Kallins, Edward Selig, Baltimore
Katz, Simon, Brooklyn, N. Y.
Ketz, Wesley John, Glen Lyon, Pa.
Knoll, William, New York, N. Y.
Lawler, Thomas Gorman, Burlingame, Calif.
Leass, Reuben, Brooklyn, N. Y.
Leavitt, Abraham Charles, Everett, Mass.
Levin, Manuel, Baltimore
Levin, Milton, Baltimore
Maginnis, Helen Irene, Baltimore
Mains, Marshall Paul, Milwaukee, Wis.
Marlett, Neumann Clyde, Hackettstown, N. J.
McNally, Hugh Bernard, Baltimore
Millett, Joseph, Pen-Mar
Mirow, Richard Raymond, New York, N. Y.
Moore, Alfred Charles, Baltimore
Moulton, Olin Cates, Sebago Lake, Me.
Mund, Maxwell Herschel, Baltimore
Needleman, Max, Brooklyn, N. Y.
O'Connor, Raymond Francis, Punxsutawney, Pa.
Orans, Alfred Abraham, Sea Gate, N. Y.
Rabinowitz, Jacob Herbert, Harrison, N. J.
Ray, William Turner, Wake Forest, N. C.
Reardon, William Thomas, Wilmington, Del.
Roberson, Edward Leon, Tarboro, N. C.
Rosen, Morris, Philadelphia, Pa.

Rosenthal, Charles Morton, Brooklyn, N. Y.
Rudo, Nathan, Baltimore
Sacks, Milton Samuel, Baltimore
Sasscer, James Ghiselin, Upper Marlboro
Satulsky, Emanuel Milton, Elizabeth, N. J.
Schwartz, Daniel James, Baltimore
Schwartz, Theodore Allison, Baltimore
Sedlacek, Joseph Arthur, Towson
Sekerak, Richard John, Bridgeport, Conn.
Siegel, Benjamin, Israel, Baltimore
Siegel, Milton, New York, N. Y.
Smith, William B., Salisbury
Snyder, John Newcomer, Clarksville, Pa.
Sollod, Bernard Walter, Baltimore
Soltz, William Boyer, New York, N. Y.
Sproul, Dorothy Gertrude, South Hamilton, Mass.
Stein, Milton Robert, Baltimore
Stephens, Wilson Pashall, Baltimore
Stutzman, Clyde Malverne, Jr., Williamsport, Pa.
Sugar, Samuel Jacob, North Beach
Sutton, Harold Lawrence, Newark, N. J.
Taylor, Andrew DuVal, Charlotte, N. C.
Terman, Irving, Brooklyn, N. Y.
Timberlake, Landon, University, Va.
Tuerk, Isadore, Baltimore
Udkow, Samuel, New York, N. Y.
Wagner, Richard, Elizabeth, N. J.
Warshawsky, Harry, Brooklyn, N. Y.
Wilder, Earle Maurice, Baltimore
Wolfe, William David, Baltimore
Zurawski, Charles, Providence, R. I.

SOPHOMORE CLASS

Adelman, Milton Harris, Brooklyn, N. Y.
Albrittain, John Warren, LaPlata
Alessi, Edward James, Baltimore
Alonso, Miguel, Palmer, Porto Rico
Alpert, George, Dorchester, Mass.
Aungst, Melvin Rauch, Mechanicsburg, Pa.
Battaglia, Dominic Thomas, Baltimore
Bierer, Dan George, Delmont, Pa.
Bock, Charles Aloysius, Pittsburgh, Pa.
Booth, Harold, Thomas, Tarrytown, N. Y.
Brouillet, George Hector, Holyoke, Mass.
Cohen, Philip, Long Branch, N. J.
Coplin, George Joseph, Elizabeth, N. J.
Cornbrooks, Ernest Ivon, Jr., Collingswood, N. J.
Cotter, Edward Francis, Baltimore
Davidson, Nachman, Baltimore
Dickey, Francis George, Baltimore
Diehl, Earl Henry, Baltimore
Dodge, Douglas Rude, Baltimore
Doerner, Alexander Andrew, New York, N. Y.
DuBois, Robert Lionel, New Haven, Conn.
Dunnigan, William Charles, Baltimore
Einhorn, Samuel Edward, Newark, N. J.
Ewald, August Ludwig, Jr., Baltimore
Fader, Ferdinand, East Orange, N. J.
Freeman, Irving, Baltimore
Fruchtbaum, Robert Pearson, Newark, N. J.
Galitz, Philip Jacob, Brooklyn, N. Y.
Gerwig, Walter Henry, Jr., Parkersburg, W. Va.
Godbey, John Randolph, McKendree, W. Va.
Grenzer, William Howard, Baltimore
Gross, Joseph Bernard, Baltimore
Hammill, Gerard Paul, Carnegie, Pa.
Harris, Aaron, Baltimore
Hartman, Ira Frank, Buckhannon, W. Va.
Heghinian, Jeannette Rosaline E., Baltimore
Helfrich, William Goldsborough, Catonsville
Herald, James Kennedy, Youngstown, Ohio
Herrold, Lewis Charles, Port Trevorton, Pa.
Hollander, Arthur, New York, N. Y.
Hugg, John Henry, Jeannette, Pa.
Kaminsky, Aaron Louis, Newark, N. J.
Kane, Harry Francis, Baltimore
Keller, Michael Lawrence, Paterson, N. J.
Klein, Harold Henry, Scranton, Pa.
Klompus, Irving, Bound Brook, N. J.
Knowles, Frederick Edwin, Jr., East Orange, N. J.
Laino, Frank Armento, Baltimore
Layton, Caleb Rodney, Canisteo, N. Y.
Lewis, Archie Clifton, Kingston
Lichtenberg, Walter, New York, N. Y.
Lieb, Saul, Newark, N. J.
Llewelyn, Louis Grandin, Baltimore
McLaughlin, Donald Clay, Hagerstown
Marek, Charles Bernard, Baltimore
Mays, Howard Brooks, Baltimore
McDonough, Oscar Tracy, Jr., Washington, Pa.
McGregor, Alpine Watson, St. George, Utah
McGregor, Lorenzo Watson, St. George, Utah
McHenry, DeArmond John, Benton, Pa.
Mech, Karl Frederick, Baltimore
Montgomery, Bruce, Morgantown, Pa.
Noon, Milton Alexander, Millersville
Pepe, Anthony James, Derby, Conn.
Pugatsky, David, Baltimore
Raffel, William, Baltimore
Reier, Charles Henry, Glen Arm
Robinson, Harry Maximilian, Jr., Baltimore
Robinson, Milton Irving, Brooklyn, N. Y.
Rodgers, Leo David, Baltimore
Rosen, Israel, Baltimore
Rosen, Sol Hyman, Bridgton, N. J.
Rosenberg, Harold William, New York, N. Y.
Russell, John Carroll, Maddox

Schmitt, George Frederick, Jr., Baltimore
Schmulovitz, Maurice Jacob, Baltimore
Schonfeld, Paul, Baltimore
Shapiro, Joseph, New York, N. Y.
Shapiro, Sydney Harold, New York, N. Y.
Shaul, John Melvin, Richfield Springs, N. Y.
Shub, Morris, Baltimore
Siscovick, Milton, Baltimore
Spitznagle, Vernon Edward, Fruitland
Stein, Benjamin Maxwell, Hempstead, N. Y.
Teitel, Louis, New York, N. Y.
Tuby, Joseph J., Brooklyn, N. Y.
Vozel, Luther F., Baltimore
Waghelstein, Julius M., Baltimore
Warren, John McCullen, Laurel
Williams, Jesse Frank, Jr., Clarksburg, W. Va
Williamson, Charles Vernon, Catonsville
Wilson, Norman James, Sparrows Point
Wode, Alvin Eugene William, Baltimore
Wood, Everet Hardenbergh, Westfield, N. J.
Woodward, Lewis K., Jr., Westminster

FRESHMAN CLASS

Aites, James William, Vandergrift, Pa.
Balles, Edward Samuel, Paterson, N. J.
Barry, James Francis, Jr., Wilkes-Barre, Pa.
Batalion, Abraham Louis, Baltimore
Bernstein, Milton, Baltimore
Bieren, Roland Essig, Baltimore
Bowie, Harry Clay, La Plata
Bricker, John Samuel, Taneytown
Burka, Irving, Washington, D. C.
Burns, Harold Hubert, Girardville, Pa.
Burton, Jerome Kermit, Catonsville
Bush, Joseph Edgar, Hampstead
Carlson, Carl Edwin, New Haven, Conn.
Cocimano, Joseph Michael, Washington, D. C.
Connolly, John Calhoun, Taylorsville, N. C.
Cranage, Bidwell Chapman, Bay City, Mich.
Ctibor, Vladimir Frantisek, Ridgewood, N. J.
Czekaj, Leo Michael, Baltimore
Dabrowski, Benjamin Anthony, Baltimore
Davis, George Howey, Brunswick
Deehl, Seymour Ralph, Elizabeth, N. J.
Deradorian, Neshon Edward, New Britain, Conn.
Dixon, Darius McClelland, Oakland
Drozd, Joseph, Baltimore
Ensor, Bennett Scott, Baltimore
Evans, Cornelius George, Clifton, N. J.
Feirer, Edward Wendelin, Union City, N. J.
Feldman, Jerome, Baltimore
Feldman, Philip Michael, Brooklyn, N. Y.
Fichtner, Albon Russell, Pittsburgh, Pa.
Finn, John Hannon, Pittsfield, Mass.
Fissel, John Edward, Jr., Baltimore
Flannery, Vern Lester, Baltimore
Frich, Michael Garland, Belle Vernon, Pa.
Gillis, Marion Howard, St. Michaels
Gimbel, Harry Solomon, Baltimore
Glassner, Frank, Baltimore
Gordner, Jesse Walter, Jr., Jerseytown, Pa.
Graf, Emil Theodore, Altoona, Pa.
Greengold, David Bernard, Annapolis
Gregory, Philip Orson, Boothbay Harbor, Me.
Greifinger, William, Newark, N. J.
Gresham, Francis Rhett, Baltimore
Grollman, Jaye Jacob, Baltimore
Hannon, Neil Joseph, Jr., Schenectady, N. Y.
Heneson, Henry, Baltimore
Herman, Daniel Loeb, Baltimore
Insley, James Knox, Jr., Baltimore
Isaacs, Benjamin Herbert, Baltimore
Jones, Ceirianog Henry, Scranton, Pa.
Jones, Emory Ellsworth, Jr., Mount Hope, W. Va.
Jones, James Porter, Pennsboro, W. Va.
Jules, Bernard Charles, Baltimore
Kagen, Gordon Arthur, Reading, Pa.
Karfgin, Walter Esselman, Baltimore
Karpel, Saul, New York, N. Y.
Katz, Joseph, Baltimore
Kleiman, Norman, Baltimore
Klemkowski, Irvin Philip, Baltimore
Knobloch, Howard Thomas, Greensburg, Pa.
Kolodner, Louis Joseph, Baltimore
Krajcovic, Jesse John, Dundalk
Kroll, Louis Joseph, Baltimore
Lipin, Raymond Joseph, Pasadena
Lowman, Morris Robert, Baltimore
Mansfield, William Kenneth, Carnegie, Pa.
Marino, Irene Thelma, Allegany, N. Y.
Maser, Louis Robert, Baltimore
McCauley, A. Franklin, Baltimore
McKnew, Hector Caldwell, Jr., Riverdale
McNinch, Eugene Robinson, West Alexander, Pa.
Moran, James Blessing, Providence, R. I.
Moran, James Patrick, New York, N. Y.
Moses, Benjamin, Bernard, Baltimore
Myerovitz, Joseph Robert, Baltimore
Myers, Lyndon Beaver, Glen Rock, Pa.
Myers, William, Pittsburgh, Pa.
Nestor, Thomas Agnew, Providence, R. I.
Nicholson, Morris John, Dundalk
Nowak, Sigmund Roman, Baltimore
O'Brien, William Aloysius, Jr., Passaic, N. J.
Owens, Maurice E. Broadas, Jr., Cumberland
Pannoni, Nicholas Albert, Fall River, Mass.
Parr, William Andrew, Baltimore
Pastrick, William Stephen, Perth Amboy, N. J.
Paye, Emerson Charles, Beacon, N. Y.
Pembroke, Richard Heber, Jr., Park Hall

Pentecoste, Salvador Dante, Bloomfield, N. J.
Reagle, Charles Ronald, Baltimore
Reichel, Samuel Marvin, Annapolis
Reynolds, John Henry, Jr., Upper Darby, Pa.
Rochlin, Narcisse, Baltimore
Roseman, Ralph Bernard, Philadelphia, Pa.
Rosenthal, Victor, Brooklyn, N. Y.
Ruland, Louis Joseph, Baltimore
Schmieler, George Peter, Mt. Oliver, Pa.
Selby, George Durward, Baltimore
Shimanek, Lawrence Joseph, Baltimore
Solomon, Cyril, Baltimore
Sorin, Matthew, Baltimore
Spain, David Michael, Brooklyn, N. Y.
Squires, Millard Fillmore, Jr., Elkton
Stapen, Milton Honore, Brooklyn, N. Y.
Statman, Bernhardt Joseph, Newark, N. J.
Stecher, Joseph Louis, Baltimore
Steinberg, Samuel, Baltimore
Stern, Morris Harold, Passaic, N. J.
Sunday, Stuart Dos Passos, Baltimore
Terr, Isaac, New York, N. Y.
Thomas, Anthony Joseph, New Bedford, Mass.
Tierney, Lawrence Matthew, West Haven, Conn.
Waller, William Kennedy, Baltimore
Weems, George Jones, Stoakley
Wehner, Daniel George, Baltimore
Weinstein, Jack Joseph, Baltimore
Wells, Gibson Jackson, Baltimore
Wilfson, Daniel, Jr., Baltimore
Wilkinson, Arthur Gilbart, Orange, Conn.
Wolf, Nathan, Baltimore
Yavelow, Charles Sidney, Mt. Vernon, N. Y.
Zimring, Joseph George, Brooklyn, N. Y.

SCHOOL OF NURSING

GRADUATE STUDENTS

Butler, Nellie Virginia, Great Cacapon, W. Va.
Gladden, Irene Douglass, Princess Anne
Huddleston, Margaret Louise, Raleigh, N. C.
Worthy, Mary Elizabeth, Chester, S. C.

SENIOR CLASS

Barclift, Daphne Garnett, Durants Neck, N. C.
Blum, Dorothy Emily, Finksburg
Bowman, Dorothy Mae, Tarrytown, N. Y.
Burnette, Arra Marie, Kearneysville, W. Va.
Caldwell, Thelma Jacqueline, Parkersbg., W. Va.
Christopher, Dorothy, Hurlock
Clark, Marie Helen, Havre de Grace
Conner, Bessie Ellen, Liberty Grove
Dahlmer, Ruth Emma, Linthicum Heights
Hinchman, Lila Margaret, Logan, W. Va.
Hix, Gladys Girtrude, Seneca, S. C.
Jones, Doris Christina, Church Creek
Mattingly, Kathryn Parr, McHenry
McCune, Mary Virginia, Williamstown, W. Va.
McKeel, Allie Sue, Ahoskie, N. C.
Melson, Edna Estelle Martin, Accomac ,Va.
Melson, Sallie Maria, Accomac, Va.
Reese, Mildred Evelyn, Venton
Scarborough, Bertha Elizabeth, Whiteford
Sherman, Margaret Claire, Williamsport, Pa.
Skinner, Martha Willanna, Baltimore
Stack, Virginia Winifred, Hurlock
Stein, Anna Elizabeth, Somerset, Pa.
Wadsworth, Josephine Elizabeth, Baltimore
Wengerd, Marguerite Marie, Meyersdale, Pa.
Wright, Dorothy Carolyn, Williamsport, Pa.
Wynne, Vivian W., Columbia, N. C.

INTERMEDIATE CLASS

Anderson, Attie Mae, Webster Springs, W. Va.
Carroll, Alma Mae, Garner, N. C.
Conklin, Ada Lythe, Hyattsville
Davis, Clarissa Reginá, Harman
Deans, Pauline Jackson, Elizabeth City, N. C.
Dobbins, Vera Pearl, Diana, W. Va.
Doll, Elizabeth Ann, Logan, W. Va.
Dutterer, Bernice May, Westminster
Everett, Irene Estelle, Bath, N. C.
Gregorius, Gertrude Xenia, Baltimore
Gosnell, Margaret Anne, Martinsburg, W. Va.
Gustafson, Louise Amalie, Fort Pierce, Fla.
Harris, Ruth Maxine, Elizabeth City, N. C.
Hoffmaster, Marguerite Moler, Millville, W. Va.
Howes, Barbara Irene, Sykesville
Koontz, H. Elizabeth, Westminster
Lewis, Myra Elizabeth, Takoma Park, D. C.
Matzen, Kathryn Margaret, Berwyn
Nixon, Elizabeth Maie, Winfall, N. C.
O'Neil, Catherine Augusta, Monongahela, Pa.
Paul, Louise Martin, Washington, N. C.
Rice, Mildred Elizabeth, Gapland
Rohde, Elizabeth Laura, Pikesville
Roth, June Keene, Baltimore
Rowles, Margaret Gertrude, Jessup
Seipt, Isabelle, Sparrows Point
Snyder, Wilda Louise, Windber, Pa.
Steinwedel, Lois Marguerite, Baltimore
Tanttari, Gertrude Viola, Dundalk
Uber, Esther E., Mercer, Pa.
Warner, Willie Hollace, Keymar
Weller, Ethel Elizabeth, Baltimore
Wright, Hazel Martha, Williamsport, Pa.

JUNIOR CLASS*

Barden, Thelma Alice, Goldsboro, N. C.
Coley, Mabel Jackson, Danville, Va.
Durst, Anna Catharine, Lonaconing
Elchenko, Alice Vera, Van Voorhis, Pa.
Gwaltney, Thelma Lucille, Claremont, Va.
Kurtz, Marguerite Louise, Joppa
Miller, Helen Marie, Grantsville
Miller, Rita Virginia, Baltimore
Rencher, Dorothy Anne, Jesterville
Thompson, Emma Virginia, Hurlock

*Entered probation class, February 1, 1932.
Promoted to junior class, August 1, 1932.

PROBATION CLASS

Bachmann, Ruth Julia, Baltimore
Balsley, Evelyn Agnes, Reidsville, N. C.
Bost, Essie Maude, Catawba, N. C.
Bowman, Sara Kathryn, Cumberland
Chaney, Yolande Wellington, Baltimore
Chelluk, Helen Ethel, Baltimore
Colliflower, Betty Adele, Frederick
Eilbeck, Margaret Glenna, Lonaconing
Evans, Ethel Irene, Dundalk
Foulke, Marjorie Belle, Thornville, Ohio
Hamilton, Elsie Avlona, Fort Mill, S. C.
Harman, Margaret Alice, Westminster
Heafner, Gwendolyn, Crouse, N. C.
Hoddinott, Beatrice Edison, Harrington, Del.
Hoke, Ann Frances, Frederick
Keadle, Mary Elizabeth, Mapleville
List, Doris Katherine, Baltimore
McGlaughlin, Freda Louise, Hagerstown
Miller, Margaret Evelyn, Chestertown
Moler, Mary Viva, Shenandoah Junc., W. Va.
Naylor, Helen Viola, Highfield
Nunnelee, Elizabeth Lewis, Washington, N. C.
O'Sullivan, Anne Jessup, Hertford, N. C.
Potter, Mary, Baltimore
Price, Ruth R., Denton
Rawlings, Nellie Victoria, Prince Frederick
Richards, Mary Garnet, Pennsboro, W. Va.
Roth, Mabel Pearl, Baltimore
Roush, Ruth Mildred, Baltimore
Routenberg, Louise Esther, Relay
Rullman, June, Towson
Shimp, Marie Stopfield, Baltimore
Tilghman, Ava Isabell, Kinston, N. C.
Weil, Margaret Mina, Goldsboro, N. C.
Wheeler, Claudia Maxine, Rowlesburg, W. Va.
Whitehurst, Doris Virginia, Linden, Va.
Wilson, Lillian Louise, Pocomoke City

SCHOOL OF PHARMACY

GRADUATE STUDENTS

Baker, William B., Baltimore
Bauer, John Conrad, Baltimore
Cwalina, Gustav Edward, Baltimore
DeDominicis, Amelia Carmel, Baltimore
Dyott, William Heller, Baltimore
Foss, Noel E., Clear Lake, South Dak.
France, Mrs. Louise Sudbury, Muncie, Ind.
Giffen, Robert Clark, Washington, D. C.
Goldstein, Samuel William, Baltimore
Greenberg, Harry Lee, Baltimore
Holtgreve, Karl Harry, Baltimore
Hunt, William Howard, Baltimore
Ichinowski, Casimer Thaddeus, Baltimore
Jacobs, Marion Lee, Chapel Hill, N. C.
Jaeggin, Richard Ben, Baltimore
Manchey, L. Lavan, Glen Rock, Pa.
Morstein, Raymond Milton, Baltimore
Oken, Louis Edward, Baltimore
Purdum, William Arthur, Baltimore
Roberts, Bertran, Westernport
Rosen, Harry, Washington, D. C.
Rubinstein, Hyman Solomon, Baltimore
Sherman, Louis Lazar, Baltimore
Shulman, Emanuel Veritus, Baltimore
Slama, Frank James, Baltimore
Wright, Thomas Gorsuch, Baltimore
Zervitz, Max Morton, Baltimore

FOURTH YEAR CLASS

Carr, C. Jelleff, Baltimore
Downs, Grant, Baltimore
Dvorak, George James, Baltimore
Feldman, Charles William, Baltimore
Highstein, Benjamin, Baltimore
Itzoe, Leonard Valentine, New Freedom, Pa.
Kahn, Juda Leon, Baltimore
Karwacki, William Stanley, Jr., Baltimore
Ladensky, William, Baltimore
Mackowiak, Stephen Casimir, Colgate
Mendelson, Herman, Baltimore
Messina, Julius, Baltimore
Segall, Jacob Roth, Baltimore
Young, James John, Baltimore

THIRD YEAR CLASS

Abramowitz, Manuel, Baltimore
Anderson, Truman Lee, Baltimore
Balotin, Louis Leon, Baltimore
Barshack, Jack, Baltimore
Beitler, Leonard, Baltimore
Bennett, Lester Leroy, Balimore
Blum, Abraham, Baltimore
Bomstein, Sol, Baltimore
Brady, Robert Wilson, Baltimore
Brill, Leonard, Baltimore
Browdy, Emanuel, Baltimore
Burtnick, Lester Leon, Baltimore
Daily, Louis Eugene, Baltimore
Dausch, Michael Joseph, Baltimore
Dittrich, Theodore Thomas, Baltimore
Dunker, Melvin Frederick William, Baltimore
Finkelstein, Karl Henry, Baltimore
Fribush, Robert, Baltimore
Friedman, Albert, Baltimore
Friedman, Gilbert I., Baltimore
Gareis, Calvin Louis, Baltimore
Gitomer, Betty, Baltimore
Gleiman, Theodore, Baltimore
Goldberg, Sigmund, Baltimore
Goldsmith, Fred Emanuel, Baltimore
Greenfield, Charles, Baltimore
Hendelberg, Isidore, Baltimore
Henderson, Nathaniel P., Baltimore
Hewitt, Cecil Bowen, Baltimore
Hillman, Gilbert, Baltimore
Kaplan, Isadore, Baltimore
Kemick, Irvin Bernard, Baltimore
Kirson, Jerome, Baltimore
Klotzman, Robert Harold, Baltimore
Kolman, Lester Norman, Baltimore
Lapin, Bernard Jacob, Baltimore
Levin, Bernard, Baltimore
Levin, Philip, Keller, Va.
Leyko, Gregory William August, Baltimore
Lusco, Santi Vincent, Baltimore
Macks, Ben Harold, Baltimore
Markin, Samuel, Baltimore
Mermelstein, David Harry, Baltimore
Miller, Abraham, Baltimore
Moshenberg, William, Baltimore
Myers, Charles, Baltimore
Newman, David, Baltimore
Novey, Samuel, Baltimore
Nusinow, Samuel, Baltimore
Pass, Isadore, Baltimore
Paul, Howard, Baltimore
Pinerman, Jerome, Baltimore
Pollekoff, Morris, Baltimore
Potash, Oscar Arthur, Baltimore
Preston, Bernard John, Jr.
Resnick, Elton, Baltimore
Rotkovitz, William, Baltimore
Rudman, Melvin Harry, Baltimore
Rudy, Harry Robert, Hagerstown
Safran, Sidney, Baltimore
Santoni, David Adam, Baltimore
Sapperstein, William, Baltimore
Schmalzer, William Joseph, Jr., Baltimore
Schnaper, Morton Joseph, Baltimore
Serra, Catherine Margaret, Baltimore
Shear, Meyer Robert, Baltimore
Shuster, Leon Paul, Baltimore
Smith, Maurice R., Baltimore
Sperandeo, Frank J., Baltimore
Taich, Louis, Baltimore
Tattar, Leon Lee, Baltimore
Thayer, Franklin Edmondson, Baltimore
Troja, Louis Francis, Jr., Baltimore
Velinsky, Sylvia Lois, Baltimore
Vogel, Louis, Jr., Baltimore
Wilderson, Reginald Stitely, Baltimore
Witzke, Louis Henry, Baltimore
Yevzeroff, Jeannette Estelle, Baltimore

SECOND YEAR CLASS

Abrams, Jesse, Baltimore
Anderson, Solon Lee, Baltimore
August, Henry John, Baltimore
Bercovitz, Leon Judah, Baltimore
Berman, Abraham Samuel, Baltimore
Blitz, Louis, Baltimore
Blivess, Manuel, Baltimore
Borcherding, William Henry, Baltimore
Brownstein, Milton J., Baltimore
Chenowith, Ralph Stallings, Brooklyn
Chin, Lillian, Baltimore
Ciurca, Joseph Charles, Baltimore
Coakley, Andrew Joseph, Baltimore
Cohen, Bernard Carlton, Baltimore
Cohen, Martin Smith, Baltimore
Cohen, Morris, Baltimore
Cohen, Samuel, Baltimore
Conner, Elmer Smith, Baltimore
Danoff, Abe, Baltimore
Dickman, Arnold Louis, Baltimore
Dodd, William Anthony, Baltimore
Dolgin, Daniel, Baltimore
Drennen, James Holly, Havre de Grace
Dubin, Max, Baltimore
Eichert, Arnold Herman, Woodlawn
Eisenberg, Louis, Baltimore
Feinstein, Isadore, Baltimore
Feret, Julius Walter, Baltimore
Fink, Francis Thomas, Baltimore
Finkelstein, Ellwood, Baltimore
Fox, Samuel Louis, Baltimore
Friedman, Milton, Baltimore

Gettier, Henry Clarke, Baltimore
Glass, Abraham Leonard, Baltimore
Goldman, Harold Kaufman, Baltimore
Goodman, Sylvan Chauncey, Baltimore
Goteiner, Hyman, Paterson, N. J.
Grau, Frank James, Baltimore
Grossman, Bernard, Baltimore
Grzeczka, Michael Francis, Baltimore
Gurbelski, Alfred Michael, Baltimore
Guyton, William Lehman, Baltimore
Haase, John Henry, Baltimore
Haransky, David Jacob, Baltimore
Hare, Clifford Allen, Jr., Baltimore
Harmatz, Irving Joseph, Baltimore
Healey, William George, Jr., Baltimore
Honkofsky, Jerome, Baltimore
Hoopes, David Thomas, Bel Air
Hornig, Frank August, Jr., Baltimore
Horwitz, Isadore, Baltimore
Januszeski, Francis Joseph, Baltimore
Jeppi, Elizabeth Veronica, Baltimore
Katz, Ely Sydney, Baltimore
Katz, Gabriel Elliott, Baltimore
Katzoff, Isaac, Baltimore
Kirk, Catherine Evans, Rising Sun
Kolker, Frank Milton, Baltimore
Komenda, Raymond Joseph, Baltimore
Lang, Louis William, Baltimore
Lasowsky, Frederick William, Hartford, Conn.
Leibowitz, Benjamin, Baltimore
Leites, Blanche, Baltimore
Levenson, Julius Victor, Baltimore
Lindenbaum, Morris, Baltimore
Liss, Nathan Isaic, Baltimore
Loftus, John, Dundalk
Lutzky, Joseph, Baltimore
Maggio, Anthony Joseph, Annapolis
Mailman, Morton William, Baltimore
Mandrow, Mary Annie, Baltimore
Marcus, Max, Baltimore
Markin, Edward Abraham, Baltimore
Mendelsohn, Israel Mordecai, Baltimore
Mentis, Anthony Peter, Baltimore
Mess, Sister Mary Adamar, Baltimore
Michael, Lucas Alphonse, Baltimore
Millman, Harry Charles, Baltimore
Molinari, Salvatore, Baltimore
Molofsky, Leonard Carl, Baltimore
Morris, Samuel, Baltimore
Muller, Stephen Edwin, Bradshaw
Musher, Arthur Albert, Baltimore
Nichelson, Max, Baltimore
Noel, Harriett Ruth, Hagerstown
Ogrinz, Alexander John, Baltimore
Plovsky, Nathan, Baltimore
Portney, Samuel, Baltimore
Pressman, Harry, Baltimore
Prostic, Harry, Baltimore
Richmond, Sewell Edward, Baltimore
Rose, Louis, Baltimore
Rosenberg, Leon, Baltimore
Schaefer, John Ferdinand, Baltimore
Schammel, Adam John, Baltimore
Scheinker, William Hillel, Canton, Ohio
Schwartz, Alvin, Baltimore
Schwartz, Edward, Baltimore
Schwatka, William Herdman, Jr., Baltimore
Sevcik, Charles Vincent, Baltimore
Sharp, Nathaniel, Randallstown
Sheppard, Robert Clay, Baltimore
Shure, Irvin, Baltimore
Skruch, Walter John, Baltimore
Sollod, Melvin Joseph, Baltimore
Sollod, Sylvan Jacob, Baltimore
Solomon, Jesse, Baltimore
Stain, Dorothy, Baltimore
Steel, Harold, Baltimore
Steinberg, Morris William, Baltimore
Stiffman, Jerome Abraham, Baltimore
Stradley, Thomas Allan, Chestertown
Swiss, Adam George, Baltimore
Taylor, Leon Joseph, Baltimore
Tucker, Alexander, Baltimore
Urlock, John Peter, Jr., Baltimore
Warshaw, Samuel, Baltimore
Weisman, Harry Lee, Jr., Baltimore
Yakel, John Stanley, Jr.

FIRST YEAR CLASS

Alperstein, Reuben Robert, Baltimore
Arenson, Benjamin, Baltimore
Aumiller, William Nicholas, Baltimore
Austin, John Marshall, Overlea
Baylus, Herman, Baltimore
Bellman, Frank Albert, Baltimore
Berkowich, Melvin Irvin, Oxford, Pa.
Bernstein, Aaron, Baltimore
Bliden, Abraham, Baltimore
Blumenstein, Alfred, Baltimore
Burke, Eugene Hayward, Baltimore
Caplan, Daniel William, Baltimore
Carter, Thomas Linwood, Arnold
Cherry, Bernard, Baltimore
Cichetti, Licinio Thomas, Baltimore
Cohen, Frank Samuel, Baltimore
Cohen, Sammie Herbert, Baltimore
Damico, Samuel, Baltimore
David, Irvin, Baltimore
DeBois, Stanley, Baltimore
England, John Edwin, Baltimore
Enten, Harry, Baltimore
Epstein, Louis, Baltimore
Euzent, Hannah, Mount Airy

Federico, Philip Joseph, Baltimore
Fish, Herman Jesse, Baltimore
Foster, Carroll Pross, Baltimore
Foster, Richard Ivanhoe, Jr., Baltimore
Freed, Arnold Ulysses, Baltimore
Freedman, Albert, Baltimore
Gaver, Leo Junior, Myersville
Gendason, Charles, Ellicott City
Ginaitis, Alphonsus Stephen, Brooklyn Park
Goldberg, Sylvan David, Baltimore
Goldman, Wilford, Baltimore
Gounaris, Themistocles Nicholas, Baltimore
Hartman, Oscar, Baltimore
Hewing, Ada Chamberlain, Baltimore
Hillis, Frank Norman, Baltimore
Hoffman, Asher, Baltimore
Jankiewicz, Frank Joseph, Baltimore
Kamber, Bertram, Baltimore
Kandel, Leonard Elliott, Baltimore
Kappelman, Melvin Daniel, Baltimore
Kleczynski, Thomas Carter, Baltimore
Kobin, Benny, Baltimore
Kurland, Albert Alexander, Edwardsville, Pa.
Laken, Benjamin Bernard, Baltimore
Lehtinen, Helen Maria, Linthicum Heights
Levin, Benjamin, Baltimore
Levin, Israel, Baltimore
Levin, Nathan, Baltimore
Luiza, John Felix, Baltimore
Lumpkin, William Randolph, Baltimore
Marks, Irving Lowell, Baltimore
McGinity, F. Rowland, Baltimore
McNamara, Bernard Patrick, Baltimore
Mikolayunas, John Peter, Baltimore
Mitnick, Harry, Baltimore
Moskey, Thomas Andrew, Jr., Washington, D. C.
Muskatt, Edith, Baltimore
Nowak, Frank Richard, Baltimore
Nuttall, James Baker, Sharptown
Ogurick, Alexander, Baltimore
O'Neill, James Joseph, Baltimore
Paul, Frank Ronald, Baltimore
Peretz, Harry, Baltimore
Pincus, Julius, Baltimore
Platt, William, Baltimore
Pollack, Albert Joseph, Baltimore
Pollack, Louis Joel, Baltimore
Porter, Vernon John, Baltimore
Prucha, Anthony James, Phoenix
Pruner, Sister Mary Theodosia, Baltimore
Rachuba, Lawrence William, Baltimore
Reamer, Sidney Harold, Baltimore
Reimann, Dexter LeRoy, Baltimore
Richter, Conrad Louis, Baltimore
Robinson, Harry Bernard, Baltimore
Robinson, Raymond Clarence Vail, Baltimore
Rodney, George, Anneslie
Romney, Carroll Edward, Baltimore
Rubin, Rebecca Joan, Baltimore
Sadove, Max Samuel, Baltimore
Sause, Milton Philip, Baltimore
Schaech, John Gerard, Fullerton
Schmitt, William John, Baltimore
Schulte, William Albert, Baltimore
Schumm, Frederick Albert, Baltimore
Shochet, Sidney, Baltimore
Shuman, Morris, Baltimore
Siegrist, John Clifford, Baltimore
Silberg, Harvey Gerald, Baltimore
Silver, Madaline Sylvia, Waynesboro, Pa.
Silverman, Sylvan, Baltimore
Smith, William Harry, Jr., Baltimore
Sopher, Edith, Baltimore
Stark, John Walter, Cumberland
Survil, Anthony Adolph, Baltimore
Swiss, Leonard Bernard, Baltimore
Tenberg, David Paul, Baltimore
Thompson, Norman Benjamin, Baltimore
Thompson, Paul Howard, Waubay, S. Dak.
Tillery, John William, Baltimore
Tramer, Arnold, Baltimore
Tublin, Solomon, Baltimore
Valle, Philip Joseph, Baltimore
Vondracek, John Wesley, Baltimore
Walb, Winfield Alexander, Baltimore
Walman, Morris, Baltimore
Weiner, Stanley Samuel, Ellicott City
Weisman, George Mantell, Jr., Baltimore
Wheat, Raymond Mass, Baltimore
Wilder, Milton Jay, Baltimore
Winakur, Arthur, Baltimore
Yaffe, Kennard Levinson, Baltimore
Yaffe, Morris Robert, Baltimore
Youch, Charles Anthony, Baltimore

SPECIAL STUDENTS

Crins, Howard Alonzo, Providence, R. I.
Cuddy, John Henry, Edgewood, R. I.
Davis, Henry, Baltimore
Frohman, Isaac, Baltimore
Gottdiener, Elvin Edward, Baltimore
Muth, William Joseph, Jr., Baltimore
Schmidt, Jacob E., Baltimore
Velenovsky, Joseph John, Jr., Baltimore
Weis, Ada Elizabeth, Baltimore

THE SUMMER SCHOOL—1932

Abbott, Kathryn K., Bennings, D. C.
Abell, Louise B., St. Inigoes
Adams, Hazel, Oldtown
Adams, Mary E., Silver Spring

*Adkins, Charles S., Newark
*Aiken, Benjamin O., Accident
Albright, Cora E., Cumberland
Albrittain, M. Louise, La Plata
Alderton, Harold L., Cumberland
*Aldridge, William D. K., Centreville
Alexander, Nelle, Accident
Anderson, Janet, Cumberland
Anderson, Lewis P., Hyattsville
Anderson, Minnie E., Salisbury
Anderson, Richard P., Mt. Rainier
Appleby, Lucile D., Kensington
Archibald, Elizabeth, Scranton, Pa.
*Armstrong, Herbert E., McDonogh
Arnold, Julia C., Brentwood
Asher, Virginia A., Aberdeen
Ashley, Martha B., Rock Hall
Asimakes, Charles P., Baltimore
Atkinson, Ardis I., Washington, D. C.
Ayers, Virginia C., Washington, D. C.
Baden, Elizabeth L., Baden
Baden, John A., Landover
Bailey, Marian, Washington, D. C.
Bailey, Pauline, Queenstown
Bailey, Reginald T., Hagerstown
*Bailey, Wallace K., Woodleaf, N. C.
Baker, Gertrude P., Nikep
*Baker, Margaret L., Pensacola, Fla.
Baldwin, Richard W., Hyattsville
Baltzell, Ruth E., Randallstown
Banning, Mary L., Aireys
Barber, Pauline R., Charlotte Hall
Barnard, Mary H., Cumberland
*Barnsley, Catherine D., Rockville
Barthel, Dorothea W., Catonsville
Bartoo, Edward R., Hyattsville
Bates, Byrtle Y., Damascus
*Bauer, John C., Baltimore
Baxter, Anna M., Chestertown
*Baxter, Lettie L., Pensacola, Fla.
Beachley, E. L., Manassas, Va.
Beall, Charles M., Washington, D. C.
*Bean, Robert C., Berlin
Beane, Bessie A., Bennings, D. C.
Beardsley, Erwin P., Washington, D. C.
*Beatty, William P., College Park
Beauchamp, Franklin, Snow Hill
Beaven, George F., Hillsboro
Beck, Derwood A., Stemmers Run
Behrend, Erna M., Washington, D. C.
Belfield, Lois M., Washington, D. C.
*Bell, Wilmer V., Baltimore
Bennett, Cornelia C., Washington, D. C.
Bennett, George E., Mardela Springs
Bennett, James R., Rhodesdale
Bennett, Margaret T., Mardela Springs
Benson, Blanche F., Sandy Spring
*Benson, Francis M., Baltimore
Berkley, Esther L., Johnstown, Pa.
Best, Robert H., Washington, D. C.
Bickmore, Helen D., Gaithersburg
Birch, Marian, Hyattsville
Birmingham, Angela M., Cumberland
Blake, Alice K., Frostburg
Blake, Margaret K., Frostburg
Blake, Mary K., Frostburg
Blake, Phillip W., Frostburg
Blandford, Alma, College Park
Blount, Lenore, College Park
Bogan, Joseph A., Washington, D. C.
Bonnette, Fernand, Sudley
Boone, Athol B., Crisfield
Bosley, Iris M., Washington, D. C.
*Botkin, Eugenia, Washington, D. C.
Bowen, Henrietta D., Snow Hill
Bouic, William V., Rockville
Bowie, B. Lucile, La Plata
Bowie, June V., Cumberland
Bowling, Ellen H., Marlboro
Bowman, Urban N., Landover
Boyd, Ann G., Sandy Spring
*Boyer, Evelyn D., Washington, D. C.
Boyer, Roswell R., College Park
Boylan, Mary N., Washington, D. C.
Brain, Earl F., Frostburg
Brandau, Adam G., Baltimore
Brashears, Florence P., Bennings, D. C.
Brennan, Alice M., Washington, D. C.
Bresler, Dora G., Washington, D. C.
Brewer, Charles A., Rockville
Brightwell, Ralph E., Lisbon
Bristol, Barbara E., Washington, D. C.
Britt, Mary R., Washington, D. C.
Brittingham, A. Louise, Willards
Brix, Marie L., Bel Air
*Bromley, Ida L., Stockton
Bromley, Sue E., Stockton
Brookbank, Annie V., Charlotte Hall
Brooke, Mabel C., Hancock
Brooks, Alice B., Oakcrest, Va.
Broome, Maude, Rockville
Brown, Jerome H., Baltimore
Brown, Lola P., Church Hill
*Brown, Russell G., Morgantown, W. Va.
Brueckner, Frederick L., College Park
Bruehl, John T., Centreville
Brummette, Lillian J., Church Creek
*Bryan, Arthur H., Baltimore
Buchanan, Bessie, Washington, D. C.
Buckler, Edythe A., Washington, D. C.
Buckler, Elizabeth V., Mechanicsville
Bullion, Cora K., Washington, D. C.
Bullock, Carolyn M., New Windsor
Burall, Olive M., Mt. Savage
Burbage, Carolyn M., Berlin
Burdette, Helen A., Gaithersburg

Burdette, Ola L., Washington, D. C.
*Burgee, Miel D., Monrovia
Burgee, Ralph, Monrovia
Burger, John R. M., Jr., Hagerstown
Burgess, Lionel, Ellicott City
Burke, Helen M., Baltimore
Burkert, Claude A., Baltimore
Burnett, Volney G., Jr., Washington, D. C.
Burriss, Henrietta L., Washington, D. C.
Burroughs, Adeline C., Upper Marlboro
Burslem, William A., Hyattsville
Burton, Julia, Washington, D. C.
Butler, Marietta E., Hobbs
Butterfield, Mary, Rosslyn, Va.
Butterfield, Robert, Washington, D. C.
Butts, Naomi O., Gaithersburg
*Butz, Harry P., Washington, D. C.
Byers, Ruth B., Hagerstown
Cain, Agnes M., Baltimore
Callahan, Lucinda A., Easton
Callis, Marvin G., Accident
Callis, Mason W., Accident
*Caltrider, Samuel P., Mt. Rainier
Campbell, Marjorie H., Washington, D. C.
*Campbell, William P., Hagerstown
Cannon, Bert E., Seaford, Dela.
Cannon, May, Princess Anne
Cannon, Mildred V., Salisbury
Carr, Elma L., Midland
Carrico, Rudolf A., Bryantown
*Carrington, George F., Crisfield
Carroll, M. Virginia, Rockville
Carscaden, Mary E., Cumberland
*Casey, Lillian L., Takoma Park
Caruthers, Imogene, Salisbury
Caspari, Fred W., Riverdale
Catlett, Helen V. J., Brunswick
*Cecil, William F., Hyattsville
Chambers, Alsie, Seabrook
Chambers, John M., Preston
*Chandler, Robert F., Jr., Gloucester, Me.
Chaney, Jane M., Woodbine
Chapman, Josephine, Cumberland
Chapman, Ray F., Washington, D. C.
Chew, Virginia, West River
Chaffin, Dorothy, College Park
Clark, Ernest C., Salisbury
Clarke, Edward M., Emmitsburg
Clarke, Mary J., Hyattsville
*Clayton, Harry K., Mt. Rainier
Clemson, Margaret B., Frederick
Clifton, Marian L., Washington, D. C.
Clifton, Helen, East New Market
Clifton, Marguerite, East New Market
Clopper, Florence M., Smithsburg
Clopper, Robert L., Smithsburg
Cocimano, Joseph M., Washington, D. C.
*Coddington, James W., Friendsville
*Coe, Johnnie B., (Mrs.), Washington, D. C.
Coffin, Aralanta, Berlin
Cohen, Morris M., Hyattsville
Cohn Sanford, New York City, N. Y.
Cole, Ethel, Linthicum Heights
Coleman, Tracy C., Takoma Park, D. C.
Coleman, Veronica C., Cumberland
Collins, Hazel E., Silver Spring
Collins, Stewart A., Riverdale
Connery, Edward F., Washington, D. C.
Connick, Aline E., Brandywine
Connick, Harvey F., Washington, D. C.
Conrad, Maude, Williamsport
Conroy, Timothy E., Barton
Cooke, Virginia B., Washington, D. C.
*Cooling, Gilbert C., Barton
Copes, Ella, Silver Spring
Copes, Grace R., Silver Spring
*Corkran, Anna P., Hurlock
*Corkran, D. Edward, Rhodesdale
*Corkran, Philip, Rhodesdale
Cornell, Edward T., Marine, Va.
Costinett, John H., Washington, D. C.
Covey, Mildred, Chestertown
Cowherd, William J., Long
Crandall, Bowen S., Chevy Chase
*Credle, Fenner X., Hedgesville, W. Va.
Creighton, Sue E., East New Market
Cressman, Kathryn, Boonsboro
Crew, Harold, North East
Crocker, Beatrice W., Silver Spring
Croft, M. LauVerne, Altoona, Pa.
Cronin, Virginia S., Aberdeen
Crook, Ryda V., Sykesville
Crosby, Muriel E., Washington, D. C.
Crosby, Virginia E., Fair Haven
Cross, Brunhilde O., Washington, D. C.
Cross, Janie A., Westwood
Crouse, Esther L., Uniontown
Crowe, Katherine F., Cumberland
Crowther, Harold E., Laurel
Cullen, Myrtle, Crisfield
Cunningham, David R., Washington, D. C.
Currens, Ruthanna, Hampstead
Curtin, Kathleen T., Washington, D. C.
Custis, Savilla, Princess Anne
Cutting, Fred, Washington, D. C.
Dahlgren, Ruby A., Friendsville
Dalton, Alice M., Salisbury
Daniel, Leviah W., Frostburg
Daniel, Margaret A., Frostburg
Daugherty, Darien B., Washington, D. C.
Davidson, Charles R., Washington, D. C.
Davis, Florence M., Charlotte Hall
*Davis, Frank R., Jarrettsville
*Davis, Gertrude J., Frostburg
Davis, William D., Frostburg
Day, Gladys S., Damascus

*Day, Sister Theodora, Berwyn
DeCesare, Nicholas R., Baltimore
Delbrook, Lena E., Corriganville
DeMarco, Mary M., Washington, D. C.
Dement, Richard H., Indian Head
Dennis, Annie M., Pittsville
Denson, Mabel E., Eden
*Derr, Charles M., Harper's Ferry, W. Va.
Derr, L. Hubert, Monrovia
DeVeau, Donald, Chevy Chase
DeVincens, Lillian, Altoona, Pa.
*Dietel, Mary B., Takoma Park
Dillon, Martha, Frostburg
Dillon, Sue, Frostburg
DiStefano, Louis S., Baltimore
Dodd, Ocie E., Chevy Chase, D. C.
Donaway, Amelia F., Salisbury
*Donoho, Dorsey, Marion
Dorfman, Joseph S., Washington, D. C.
Dorman, Edgar A., Washington, D. C.
Dorsey, Agatha V., Midland
*Doub, Charles A., Williamsport
Downing, Amanda F., Hebron
Downton, Lydia M., Cumberland
*Doyle, Katherine G., Westminster
*Doyle, Mary J., Westminster
Dryden, Julia E., Pocomoke City
Dryden, Ruth, Snow Hill
Dudley, Rachel E., Eckhart Mines
Duley, Thomas C., Croome Station
Duncan, Jessie D., Oxford
Dunn, Mattie M., Washington, D. C.
Durborow, Agnes L., Hagerstown
Durner, Viola D., Severn
Duvall, Alma C., Annapolis
Duvall, Ethel W., Kensington
Duvall, Marland W., Jessup
Ebaugh, Frank C., Jr., Washington, D. C.
Eckard, Margaret C., Westminster
Edlavitch, Samuel L., Washington, D. C.
Edmonds, Ralph M., College Park
*Edwards, D. Robert, Takoma Park
Edwards, Earl L., Washington, D. C.
Ehle, Elizabeth V., Perry Point
Eiler, Charles M., Union Bridge
Eldridge, Florence E., Takoma Park
Ellegood, Georgia G., Delmar, Dela.
Elliott, Marguerite A., Woodridge, D. C.
Emery, Ethel V., Shepherdstown, W. Va.
Emmons, Elizabeth S., Anacostia
English, Marian L., Mardela Springs
English, Martha L., Mardela Springs
Ensor, C. Rebecca, Fowblesburg
*Erdman, Ruth, Burkittsville
*Ericson, Ruth O., Riverdale
Escalona, Rafael, Baltimore
Esham, Bessye L., Berlin
*Eutsler, Keener W., Shepherdstown, W. Va.
Evans, Benjamin H., Lonaconing
Evans, Frances E., Frostburg
*Evans, Frederick H., Washington, D. C.
Evans, Nannie B., Bel Air
*Everett, Kathryn, Washington, D. C.
Everline, Athalia E., Frostburg
Eyler, Lloyd, Thurmont
*Farley, Richard F., Takoma Park
Farnham, Charlotte E., Washington, D. C.
Farrell, Jeannette L., Mt. Savage
Farson, Beulah, Showell
Farver, Albert L., Cambridge
Farwell, Gladys P., Riverdale
Fazenbaker, Lora J., Westernport
Feaga, Ruth E., Lime Kiln
*Ferguson, Harry F., Baltimore
Ferry, Charles F., Takoma Park
Figgs, Ruth E., Delmar, Dela.
Filer, Grace E., Frostburg
Firmin, John M., Washington, D. C.
Fisher, Charlie B., Thomas
Fisher, George, Baltimore
*Fisher, John W., Westernport
Fisher, Mary C., Rockville
Fisher, William A., Jr., Baltimore
Fitzgerald, Laura P., Princess Anne
Fleetwood, Dorothy A., Centreville
Fleming, Katherine C., Mt. Airy
Fletcher, Mildred J., Takoma Park, D. C.
Flook, E. Evelyn, Knoxville
Flook, Meredith A., Burkittsville
Flurer, Gertrude H., Princess Anne
Fogle, Hazel L., Walkersville
Folmer, Henry M., Washington, D. C.
Foltz, Charles T., Washington, D. C.
Foote, Katherine M., Lonaconing
Ford, Alleine K., Boonsboro
Ford, Ella M., Washington, D. C.
Forsythe, Florence K., Kempton, W. Va.
*Foss, Noel, Baltimore
Foster, Charles F., Washington, D. C.
*Foster, James J., Front Royal, Va.
Frankel, Nathan J., East Orange, N. J.
Franklin, John M., Oakland
Frantz, Merle D., Friendsville
*Frazier, William A., Carrizo Springs, Texas
Freimann, Catherine E., Baltimore
Fuller, Marjorie V., Washington, D. C.
Funk, Eva I., Brunswick
Galliher, Joseph H., Jr., Washington, D. C.
Gamble, Etta E., North East
Gantt, Delta N., Grantsville
Garlet, Hazele, Oakland
*Garreth, Ralph, College Park
Gary, Ruth E., Washington, D. C.
Gary, Theo, Washington, D. C.
Gatchell, Margaret R., Joppa
Gaver, Leona M., Mount Airy

Gaver, Rachel E., Mt. Airy
*Getty, Frank J., Grantsville
*Gibbons, Maud, Croom
Gibson, Margaret H., Washington, D. C.
*Gifford, George E., Rising Sun
Gilbert, George E., College Park
Gillespie, Fannie, Pocomoke
Gilliss, Mary A. F., St. Martin's
*Given, Maurice, Vinton, Va.
Glading, Rebekah F., Lanham
Godfrey, Ethel M., Snow Hill
Goldman, Luther C., Washington, D. C.
Goldsborough, Mary E., Centreville
Goodhart, Raymond J., Washington, D. C.
Goodyear, Betty A., Riverdale
Gootee, Mary V., East New Market
Gosnell, Ruth B., Woodbine
*Graham, William C., North East
Gray, Jane E., Port Tobacco
Green, Catherine R., College Park
Greenhow, Betty C., Washington, D. C.
Greenwood, Arthur L., Chestertown
Gregory, Carl S., Seat Pleasant
*Griffin, E Franklyn, Sharptown
Griffith, Dorothy, Takoma Park
Griffith, Grace C., Washington, D. C.
Griffith, Nellie M., Gaithersburg
Griffith, Paul S., Frostburg
*Grim, Dorothy A., Frostburg
Grimes, Ida K., Hagerstown
Grossnickle, Harold E., Myersville
Grubbs, Alice L., Dendron, Va.
Gruver, Esdras S., Hyattsville
*Guenther, Carl E., Takoma Park
Gummel, Edward F., Silver Spring
Gunby, Clara C., Salisbury
Gwyn, Mary B., Washington, D. C.
Haas, Charles F., Washington, D. C.
*Hackett, Thomas P., Queen Anne
Haefner, William F., Baltimore
Hafer, Amalie, Baltimore
Haffner, Emanuel B., Baltimore
*Hagberg, Josephine, Takoma Park
*Haines, Helena J., Hyattsville
*Hall, H. B., Brandywine
Hall, Jonathan, Washington, D. C.
*Hall, Ruth N., Brandywine
Hamblin, Gertrude, Pittsville
*Hammack, Charles L., Emmerton, Va.
*Hammack, Russell C., Emmerton, Va.
Hammond, Elmer G., Baltimore
Hanna, G. Vernon, Baltimore
*Hannum, Harold B., Berrien Springs, Mich.
Hansen, John A., Frederick
Harbaugh, Paul W., Brunswick
Harlan, Edwin, Baltimore
Harper, Rachel B., Hurlock
Harrington, Irene N., Annapolis
*Harris, Walter G., Washington, D. C.
Harrison, Mabel C., Laurel
Hart, Elizabeth P., Frostburg
Hartley, Alyce E., Kitzmiller
*Harver, Fred F., Bel Air
*Haskins, Willard T., Binghamton, N. Y.
Havlick, Bernard F., Secretary
Hawkins, Frank J., Hyattsville
*Hawkshaw, Emily T., College Park
Hay, Donald A., Washington, D. C.
Hays, Carlotta A., Braddock Heights
Hearn, Harriet E., Bishopville
Heavener, Mabel L., Hyattsville
Heghinian, Garabed W., Baltimore
Heil, Myra B., Washington Grove
Helbig, Lula S., Oakland
*Henderson, Perlie deF., Takoma Park
Hendley, Margaret J., Frostburg
Hergott, Dorothy C., Mt. Savage
Herstein, Max H., Newark, N. J.
Hess, Palmer, Hancock
*Hesse, Florence C., Hagerstown
*Hetzel, Fred, Cumberland
Heward, Lillie, Snow Hill
Hickman, Mildred M., Crisfield
Higgins, Mabel L., Vale Summit
*High, Louis F., Joppa
Hightman, Elinor C., Burkittsville
Hild, Charles D., Washington, D. C.
*Hill, Elsie M., Flintstone
Hines, Frank B., Chestertown
*Hitchcock, George R., Westminster
Hiteshew, Rebecca E., Frederick
*Hoelzel, Virginia, Takoma Park, D. C.
Hoffman, Louis, Baltimore
Hoffmaster, Paul L., Myersville
Hoge, Alta A., Cambridge
Hoglund, Margaret E., Takoma Park
Holland, E. Virginia, Easton
*Holter, D. Vernon, Middletown
*Hookum, Don W., Mt. Pleasant, Iowa
*Hoover, Paul, Severna Park
Hopkins, Elizabeth M., Anacostia, D. C.
*Horner, Helen A., Westminster
Horner, Theresa W., Monie
Horner, William E., Monie
Horney, Paul O., Baltimore
Hornig, Frank A., Baltimore
Horsey, Christie W., Crisfield
*House, Bolton M., College Park
*House, James H., Flintstone
House, Mildred L., Flintstone
*Houser, Phyllis M., Brentwood
Howard, Adrienne R., College Park
Howard, Joseph C., Washington, D. C.
*Howard, M. Louise, Dayton
Howard, Ruth M., Washington, D. C.
Howell, Ethel, Honesdale, Pa.

Hubbard, Anna M., Cambridge
Hughes, Greta K., Welcome
Hull, Marie E., Union Bridge
Humphreys, Iris E., Salisbury
Hunt, Lula W., Annapolis
Hurlock, E. Marie, Church Hill
*Huston, Reginald W., Salisbury
Iden, Josie M., Kitzmiller
Ijams, Elizabeth V., Baltimore
Ingles, Marie, Cumberland
Ingram, Sallie B., Harper's Ferry, W. Va.
*Irving, Reid, Riverdale
Ivins, May E., Easton
*Jackson, Dorothy J., Greenfield, Ind.
Jackson, Lois P., Princess Anne
Jackson, Mary R., Frostburg
Jaques, Louise B., Landover
Jarboe, Maude M., Mechanicsville
Jarrell, Temple R., Hyattsville
*Jenkins, Stanleigh E., Hyattsville
*Jewell, Edgar G., Damascus
Jewell, Florence M., Betterton
Jocelyn, Hazel B., Princess Anne
Johnson, Daniel B., Beltsville
Johnson, Virginia M., Lantz
Jones, Bruce W., Washington, D. C.
Jones, Dorothy H., Pittsville
Jones, Elgar S., Olney
Jones, Kinsey, Washington, D. C.
Jones, Margaret E., Baltimore
Jones, Mary E., Hollywood
Jones, Robert W., Frostburg
Jones, William R., Ridgely
Jones, Woodrow W., Cambridge
Judy, Ruth A., Cresaptown
Jump, Margaret D., Queen Anne
Kabele, Frances, Goldfield, Iowa
Kabele, Martha B., Goldfield, Iowa
Kadan, J. Earl, Takoma Park
Kaiser, Luella B., Champaign, Ill.
Kaplan, Leah, Washington, D. C.
Keener, Bernard H., Baltimore
*Kefauver, J. Orville, Mt. Savage
Kelbaugh, E. Tilden, Baltimore
Kelley, Mary M., Millsboro, Dela.
*Kelley, Michael J., Washington, D. C.
Kelley, Minnie M., Rock Hall
Kemp, Mary, College Park
Kenny, Marguerita, Quogue, N. Y.
Kepler, Russell, Boonsboro
Kerns, William E., Greensboro
Kerr, Roy H., Hyattsville
*Kershner, Julia E., Hagerstown
Killiam, Gertrude, Salisbury
Killins, Ruth, Mt. Lake Park
Kimble, Maud B., Washington, D. C.
King, James X., Washington, D. C.
*King, John R., Bloomington, Ind.
King, Mary L., Germantown
King, Olive E., Clinton
King, Ora H., Clarksburg
Kinna, Robert C., Chewsville
Kinnamon, Bessie F., Centreville
Kinnamon, Myrtle V., Cordova
Kirby, Marion, Takoma Park
Kirby, Miriam, Chestertown
Kirwan, Blanche E., Crapo
Kirwan, Mary C., Chester
Kirwan, Ruby B., Crapo
Kitwell, Jeanette B., Washington, D. C.
Kline, Annabel C., Frederick
*Knight, T. H. Owen, Silver Spring
*Knowles, DeWitt C., Jr., Washington, D. C.
*Knox, Clarence M., Finksburg
Knox, Irene G., College Park
Knox, Josephine, College Park
Knox, Lloyd T., Jr., College Park
*Knox, Louis, Towson
Krausse, Harry W., Baltimore
Krivitsky, Samuel, Baltimore
*Kruger, John H., Beltsville
Kuperstein, Charles, Washington, D. C.
Kurland, Louis, Baltimore
Lambert, M. Katherine, New Windsor
*Lammert, Lloyd L., Wenonah, N. J.
*Lane, John P., Chevy Chase
Langford, Geneva, Blythewood, S. C.
Langrall, Margaret E., Baltimore
Lank, John C., Salisbury
*La Pierre, Virginia A., Chicago, Ill.
Larmore, Audrey E., Tyaskin
Larrimore, Mary A., Sudlersville
Law, Francis E., Washington, D. C.
*Lawler, Sydney T., Faulkner
Lawrie, Andrew, Jr., Newark, N. J.
Lawton, Edwin H., Washington, D. C.
Layman, Mary G., Frostburg
Leager, Miriam H., Centreville
Leasure, William C., Silver Spring
Leatherbury, Iris B., Shady Side
Lee, Jennie, Frostburg
Lee, Mary, Frostburg
Leech, Dorothy E., Washington, D. C.
Lehr, H. Franklin, Bethesda
Levy, Louis S., Washington, D. C.
Lewis, Alice M., Eckhart Mines
Lewis, Charles E., Hagerstown
Lewis, Clestelle M., Glenn Dale
Lewis, Klora S., Myersville
Lewis, Thomas W., Cumberland
*Likely, Robert H., Savage
Lilly, Nora C., Elkridge
Lindahl, Frances T., Washington, D. C.
Lindfors, Ruth E., Assaria, Kansas
*Link, Daniel C., Indian Head
Lippold, Kate M., Cumberland

Lloyd, Marian A., Frostburg
Lofgren, Olga C., Brentwood
Long, John C., Hagerstown
Long, William B., Westover
Longley, Edward L., Baltimore
Lord, John W., Denton
Lore, Stanley C., Washington, D. C.
Love, Elizabeth T., Lonaconing
Lovell, Jeannette, Brentwood
Lovell, Mary H., Brentwood
Lucas, Ada, Cumberland
*Lucas, Elmer P., Cherrydale, Va.
Lung, Paul H., Smithsburg
Luthringer, Catharine, Cecilton
Lutz, L. Katherine, Takoma Park
*Lynch, Marie C., Westminster
Lyons, Margaret M., Cumberland
Lyons, Mary A., Frostburg
Magaha, Nellie I., Burkittsville
Mahoney, Ruth K., Washington, D. C.
Maloney, Ercell L., Washington, D. C.
Mangum, Mary E., Washington, D. C.
Mangum, Susie A., Washington, D. C.
Manieri, Frank V., Baltimore
Manley, John F., Frostburg
Manning, Maud, Accokeek
Manuel, Louise H., Brunswick
Manwaring, H. Laurence, Washington, D. C.
Marshall, Gwendolyn A., Princess Anne
*Marth, Paul C., College Park
*Marth, William, Easton
*Martin, Rae G., Hughesville
*Martin, Thomas C., Hughesville
Mason, Samuel, College Park
Mason, Verabell, Washington, D. C.
Matheke, Otto G., Newark, N. J.
*Matthews, Earle D., Homestead, Fla.
Matthews, Elizabeth A., Stockton
Matthews, Jason E., Jr., Washington, D. C.
Matthews. Margaret E., Cambridge
Matthews, Nannie B., Pocomoke
Mattingly, Carolyn W., Wingate
*Mattingly, Jane G., Leonardtown
McAfee, Ruth B., Des Moines, Iowa
McAllister, Marian R., Snow Hill
McAlpine, Dorothy, Lonaconing
*McCleary, Edith B., Baltimore
McCord, Estelle S., Washington, D. C.
McCormick, Alice A., Barton
McGrath, Joseph S., Crisfield
McIntosh, Edwin K., Sharptown
McKnew, Hector C., Jr., Riverdale
McLain, Edward J., Washington, D. C.
*McMenamin, David, Chestertown
*Meckling, Frank E., Takoma Park
*Medlock, Lawrence C., Honea Path, S. C.
*Meredith, Francis E., Federalsburg
Messick, Leah, Quantico
*Metcalfe, Howard E., Takoma Park
Metcalfe, Verna M., Takoma Park
Meyer, Eleanor L., Ozone Park, N. Y.
Meyer, Theodore F., Washington, D. C.
Michaelson, Ernest A., Bladensburg
*Miliner, Nona A., Stevensville
Miller, Charles, Baltimore
Miller, Emmy K., Takoma Park, D. C.
Miller, LaVerne, Washington, D. C.
Miller, Luther B., Baltimore
*Miller, Ruth, Takoma Park
Milliken, Elizabeth B., Annapolis
Milliken, Julia W., Silver Spring
Milobsky, Louis, Washington, D. C.
*Mitchell, Herbert F., Hyattsville
*Mock, Margaret E., Wheeling, W. Va.
Molster, Elizabeth F., Brookland, D. C.
Montgomery, Elizabeth L., Rockville
Montgomery, Eva M., Barton
Moore, Staton W., Fruitland
Morcock, Julius E., Washington, D. C.
Moreland, Mary B., Anacostia Station, D. C.
Morgan, Dorothy B., Washington, D. C.
Morgan, Gertrude E., Centreville
Morningstar, Mary A., Bethesda
Morris, G. Claire, North East
Morris, Hilma M., Bethesda
Moser, Marion O., Frederick
Muck, Mary E., Hagerstown
*Mueller, Mary C. B., Washington, D. C.
Mullinix, Constance C., Mt. Airy
*Munkwitz, Richard C., College Park
Murphy, Katherine E., Royal Oak
Murray, Mabel M., Cumberland
Mustian, Helen A., Middlebury, N. C.
Muth, Beryl W., Washington, D. C.
Myers, Elizabeth P., Hebron
Myers, Mabel E., Frostburg
Neff, Virginia K., Frostburg
Neilson, Julia M., Baltimore
Nelson, Anna, Fallston
Nelson, Elizabeth K., Snow Hill
*Nelson, Thorman, Queen Anne
*Nicht, Theresa B., Frostburg
Nicol, Jean B., Rockville
*Nicol, Mary B., Rockville
Nolan, Edna, Mt Rainier
Norris, Joseph V., Baltimore
Nutwell, Elizabeth S., Greenock
*Oglesby, Samuel C., Girdletree
*Oldenburg, Grace M., Hyattsville
O'Rourke, Elmo M., Cumberland
Osborne, Carol J., Forest Hill
*Ottman, Helen E., Oak Park, Ill.
Owens, Doris, Hanover
Owings, Helen B., Owings
Palmer, Mary, Myersville
Parker, Mildred I., Berwyn

Parker, Ruth A., Washington, D. C.
Parkman, Theodore G., Silver Spring
Parsons, Mary E., Snow Hill
Patton, Samuel E., Takoma Park
Payne, Mary S., Hyattsville
*Payne, Stella E., Hyattsville
Pennington, Helen D., Easton
Pergler, Carl, Washington, D. C.
Perrie, Naomi L., Washington, D. C.
Peterson, Nellie P., Rock Hall
Phillips, Hazel H., Washington, D. C.
*Phipps, William R., Annapolis
Picken, Marion, Lonaconing
Pickrell, Beulah S., Boyd
Pierce, Marcia E., Washington, D. C.
Pistel, Ralph R., Hyattsville
Pitts, Robert R., Washington, D. C.
Poffenberger, Elmer L., Sharpsburg
*Poole, Harry R., Williamsport
Poppelman, Raymond J., College Park
Post, M. Gertrude, Bladensburg
Press, Eva F., Washington, D. C.
Pritchett, Ruth W., Bishops Head
Prout, Rebecca S., Fair Haven
Pruitt, Nellie V., Girdletree
Pryor, Glen M., Lantz
Pumphrey, Joseph, Baltimore
*Purdum, Dorothy L., Hyattsville
*Purdum, Elizabeth R., Hyattsville
Purnell, Gertrude, Berlin
Pusey, A. Louise, Princess Anne
Pusey, Lola M., Marion
Quattlebaum, Belle, Columbia, S. C.
*Quigley, George D., College Park
Quinn, Mary C., Chestertown
*Ramsburg, Elmer K., Frederick
Ramsburg, Herman F., Frederick
*Rash, Harold H., Chestertown
*Rasin, Harry R., Millington
Rathke, Viggo E., Ridgely
*Rau, Ernest W., Baltimore
Rea, Parthia M., Landover
Ream, Vera F., Crellin
*Reber, Harold Z., Shippensburg, Pa.
*Reddick, Daniel L., Walkersville
Reddish, Mae, Salisbury
*Reed, Albert M., Westminster
Reed, Catherine T., Riverdale
*Reed, Grace E., Baltimore
*Reed, Helen, College Park
Reed, Marie L., Cambridge
Reed, Ruth V., Baltimore
Reese, Myrtle R., Oakland
Reeves, Eleanor, Milestown
Reichel, Charles P., Washington, D. C.
Reidy, Kathryn, Garrett Park
Rekar, Eleanor M., Solomons
Rhodes, Pearl C., Clear Spring
Rice, Ruth B., Cumberland
Richardson, Lula B., Willards
Richardson, Mary F., Washington, D. C.
*Rigdon, Wilson O., Cardiff
Riggleman, Jessie, Frostburg
*Riley, Mary B., Hyattsville
Rizer, Emma T., Mt. Savage
Robbins, J. William, Cambridge
*Roberts, J. Harvey, Baton Rouge, La.
Robertson, James C., Jr., Baltimore
*Robey, Carrie E., Beltsville
Robinson, Arthur E., Bladensburg
Rodgers, Lillian C., Elkridge
Rohde, Clarence C., Pikesville
Roller, Charley S., III, Fort Defiance, Va.
*Rolston, Frank, Washington, D. C.
*Roop, Phoebe H., Westminster
Rosenfeld, David, Washington, D. C.
Rosenfield, Marjorie D., Mt. Rainier
Ross, Alice H., Harrington, Dela.
Ross, Alice M., Easton
*Rubinstein, Hyman S., Baltimore
Ryon, Louise, Bennings Sta., D. C.
Sadowsky, Irving, North East
*Samples, Virginia C., Grafton, W. Va.
Sard, Esther E., Secretary
Sasscer, Cora D., St. Michaels
Savage, John B., Baltimore
Scarborough, Marguerite, Columbia, S. C.
Schall, Richard D., Berwyn
Schall, Thomas D., Berwyn
Schauman, Albert C., Baltimore
Schilling, Barbara, Cumberland
Schmidt, Raymond C., Washington, D. C.
Schnebly, Carrie R., Hagerstown
Schott, Dorothy S., Rockville
*Schott, Loren F., Rockville
*Schutt, Cecil, Takoma Park
Schwatka, Dorothy D., Crisfield
Sclar, Jacob B., Silver Spring
Seay, Charles, Washington, D. C.
Secrist, Ford I., Easton
*Seese, Carmon D., Johnstown, Pa.
Settle, L. H., Washington, D. C.
*Sewell, Reese L., Annapolis
Shann, Elizabeth H., Trenton, N. J.
Shaver, Margaret C., Silver Spring
Shaw, Ann B., College Park
Shawbaker, Ethel F., Monrovia
Shepherd, Claire, Berwyn
Shepherd, John H., Jr., Berwyn
*Shepherd, Matson W., Berwyn
Sherwood, Anna E., Catonsville
Shinn, Virginia S., St. Michaels
Shipley, Howard B., College Park
Shipley, Margaret L., Sykesville
Shives, Lena M., Big Pool
Shockley, Bryan L., Kitzmiller

Shockley, Ethel E., Snow Hill
Shoemaker, Edna L., Cumberland
Shoemaker, Francis D., Bethesda
*Shrader, Sterl A., Marlinton, W. Va.
Shriver, Charlotte M., Emmitsburg
*Shugart, Gervis G., Upper Marlboro
Shugart, Marguerite, Upper Marlboro
*Shulman, Emanuel V., Baltimore
Singafoose, Nellie L., Point of Rocks
Sigelman, Harry P., Watertown, S. Dak.
Silber, Sam L., Baltimore
Simmons, Eileen V., Prince Frederick
Simmons, Ruth E., Bowen
Singles, Mary C., Chevy Chase
*Slama, Frank J., Baltimore
Sleeman, Ursula, Frostburg
Slocum, Doris E., Washington, D. C.
Small, Jeffrey M., Hyattsville
Small, John R., Washington, D. C.
Smith, Anna M., Millington
*Smith, Dorothy M., Takoma Park, D. C.
*Smith, Ethel L., Washington, D. C.
Smith, Frances A., Church Hill
Smith, H. Madelynne, Myersville
*Smith, Helen I., Takoma Park, D. C.
Smith, Irvin, Denton
Smith, Kathleen, Riverdale
Smith, Lena, Oriole
Smith, Mary E. M., Frederick Junction
Smith, M. E., (Mrs.), Hagerstown
Smith, Raymond R., Washington, D. C.
Smith, Ruth E., Frederick Junction
Smith, Virginia, Hyattsville
Smoot, Mildred D., Kensington
Snook, Kathryn A., Buckeystown
Snook, Mary V., Hagerstown
Snyder, Hazel E., Cumberland
Solt, James E., Frostburg
Soper, Jessie G., Piscataway
Souder, Ruth P., Damascus
*Sparks, Walter M., Baltimore
Speer, Sanford T., Washington, D. C.
Speicher, Grace E., Accident
Speicher, Ruth M., Accident
Speiden, Jeannette, Silver Spring
*Spencer, Raymond R., Baltimore
Spicknall, Florence L., Hyattsville
Spicknall, William L., Hyattsville
Springer, Elsie L., Emmitsburg
Sprinkel, Starr P., Washington, D. C.
Stafford, Margaret M., Lonaconing
Stagg, Lucy N., Snow Hill
Staggers, Elaine, Laurel
Staley, Dan R., Knoxville
Stant, Margaret R., Church Hill
*Startt, Walter S., Chestertown
Steffey, Phoebe, Williamsport
Stevens, Margaret M., Takoma Park
Stevens, Ruth M., Federalsburg
Stewart, Alice, Frostburg
*Stier, Howard L., Glenelg
*Stinnett, Lucille L., Brentwood
Stotler, Rebecca, Cumberland
Strailman, Eleanor J., Frederick
*Strickland, Frances H., Elkton
Stroup, Gilbert S., Myersville
*Stuart, Neil W., Clarksville
Stup, Margaret R., Frederick Junction
Sturgis, Edna, Delmar, Dela.
Sturgis, Emily J., Girdletree
Stutsman, Hope E., Lanham
Sudler, Olive W., Baltimore
Sugar, Sarah F., Washington, D. C.
*Sumerford, Wooten T., Reidsville, Ga.
*Summers, Charles A., Boonsboro
Swank, Ruth C., Brunswick
*Taylor, Alice E., Perryville
Taylor, Gladys V., Williamsport
Taylor, Myra C., Frostburg
Taylor, Naomi C., Tyaskin
Teal, Gilbert E., Pasadena
Tennant, Anna W., Cumberland
Teter, Naomi R., Cumberland
Thomas, Catherine E., Frostburg
Thomas, Frederick, Washington, D. C.
Thomas, Gladys M., Boonsboro
Thomas, Louise M., Showell
*Thomas, Mary L., Oakland
Thomas, Mary T., Washington, D. C.
Thomas, Robert W., Washington, D. C.
Thomas, William J., Ednor
Thompson, Jack L., Chevy Chase
Thorne, Clayton T., Silver Spring
Thorpe, Day, Bethesda
*Thrasher, Anne N., Washington, D. C.
Todd, Wyona, Wingate
Toms, Nora E., Myersville
Toulson, Isabelle, Salisbury
Trotter, Margaret O., Clarksville
Trundle, Bertha T., Frederick
Tubbs, Mary C., Salisbury
Turner, N. Eva, Malcolm
Twigg, Margaret M., Oldtown
Twigg, Mary E., Frostburg
Twilley, Nina, Hebron
Uhrbrock, Walter, Snow Hill
Ullrich, J. Rittenhouse, Baltimore
Upton, Emma H., Dickerson
Vanderford, Bonnie D., Brentwood
*Van Metre, Albert R., Glen Burnie
Van Wyck, Norma, Southold, N. Y.
Vawter, Virginia D., Laurel
*Veitch, Fletcher P., Jr., College Park
Vickers, Osbon T., Laurel
Vigderhouse, Bernard D., Washington, D. C.
Vignau, John, Washington, D. C.

Vincent, Rufus H., Hyattsville
Vizza, Caroline, Zihlman
Vocke, Margaret M., Cumberland
Vogtman, Harry R., Frostburg
Volkman, Ada I., Washington, D. C.
*Vreeland, Frederick F., Philadelphia, Pa.
Wachtel, Margaret J., Myersville
Waddey, Mary H., Princess Anne
Wade, Frank B., Port Tobacco
*Wade, Margaret E., Port Tobacco
Waesche, Charlotte S., Mitchellville
Wainwright, Florence A., Washington, D. C.
Waldron, Agatha T., Washington, D. C.
Walk, Mildred D., Cumberland
Wallace, Charlotte L., Mechanicsville
Wallace, Nellie K., Mechanicsville
Waller, John R., Hebron
Walter, J. Edward, Cambridge
Walters, Francis P., Cumberland
Walton, Pelham A., Washington, D. C.
Wansleben, Thomas O., Riverdale
*Ward, James R., Gaithersburg
Ward, John H., Crisfield
Ward, Kathryn M., Washington, D. C.
Ward, Mary B., Gaithersburg
Ward, Nellie A., Paris
Ward, Sarah J., Rockville
*Warfield, Mary C., Woodbine
*Warfield, William E., Silver Spring
*Warthen, Thomas V., Bel Air
*Waskow, Henry B., Baltimore
Wasserman, Sidney, Baltimore
Wasson, Elsie, Baltimore
Watkins, Orville R., Hyattsville
Weagly, Margaret H., Ellicott City
*Weagly, Robert H., Ellicott City
Weaver, Louise E., Hancock
Weber, Beatrice, Washington, D. C.
Webb, Maude S., Towson
Webster, Elizabeth F., Pylesville
Webster, Nan, Pylesville
Weinman, Sidney, Baltimore
Weirich, William B., Hyattsville
Weitzell, Everett C., Accident
Welch, Mabel B., Charlotte, N. C.
Welch, Marion L., Annapolis
Weller, Elsie M., Cumberland
Wellman, Thelma M., Takoma Park, D. C.
Welsh, Thomas H., Hyattsville
Welty, Grace E., Smithsburg
Wenrick, Eleanor G., Ellerslie
*Wentz, Clark H., Manchester
West, James A., Anacostia, D. C.
*Wheelan, Frank N., Washington, Iowa
Wheeler, Elsie L., Silver Spring
*White, Clark, College Park
White, Edith, Chestertown
White, Georgia W., College Park
White, Jack O., Annapolis
White, S. Cottrell, Baltimore
White, Saranna, Emmitsburg
Whitt, Marie B., Washington, D. C.
Wilcox, Annette T., Washington, D. C.
Wilkinson, Eileen, Gaithersburg
Williams, Estelle D., Frostburg
*Williams, Gertrude R. C., Frostburg
*Williams, Loris E., Takoma Park
Willing, Ruth, Bivalve
Willis, Pearl N., Preston
Willis, T. Leland, Washington, D. C.
Willison, Hilda K., Cumberland
*Wilson, C. Merrick, Ingleside
Wilson, Mary C., Princess Anne
Windham, Aubrey B., Washington, D. C.
Windsor, Helen M., East New Market
*Winnemore, Augustine E., Chevy Chase
Winner, Margaret E., Frostburg
Winter, J. Edward, Midlothian
Wise, Elizabeth, Cumberland
Wise, Franklin B., Dover, Dela.
Wood, J. Arthur, Easton
*Wood, May L., Boyd
Wooden, Ernest E., Jr., Reisterstown
Woods, Albert W., Kansas City, Mo.
*Woods, Mark W., Berwyn
Woodward, Emily C., Annapolis
Wootten, Eunice H., Laurel
Wright, Phillip A., Federalsburg
Wright, Robert K., Frederick
Wright, Sara E., Frostburg
Wright, Sterling W., Washington, D. C.
Wyand, Abbie V., Sharpsburg
Yantz, Genevieve M., Mt. Savage
Yochelson, Charlotte S., Washington, D. C.
Yocum, Edmund F., Baltimore
Yonkers, Bernard O., Flintstone
Yonkers, Genevieve A., Flintstone
Yost, Myrtle E., Washington, D. C.
Young, Hilda, Prince Frederick
Young, Irene A., Silver Spring
Zoeller, Lillian, Woodlawn

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* Graduate Students.

SUMMARY OF STUDENT ENROLLMENT
AS OF JUNE 1, 1933

RESIDENT COLLEGIATE COURSES—ACADEMIC YEAR.

	College Park	Baltimore	Totals
College of Agriculture	200	-----	200
College of Arts and Sciences	793	-----	793
School of Dentistry	-----	431	431
College of Education	227	-----	227
College of Engineering	411	-----	411
Graduate School	255	-----	255
College of Home Economics	114	-----	114
School of Law	-----	188	188
School of Medicine	-----	413	413
School of Nursing	-----	111	111
School of Pharmacy	-----	365	365
Total	2000	1508	3508
SUMMER SCHOOL, 1932	1033	-----	1033
EXTENSION COURSES:			
Industrial Education (Collegiate Credit)	200	-----	200
Mining (Sub-Collegiate Credit)	520	-----	520
Grand Total	3753	1508	5261
Less Duplications	-----	-----	295
Net Total	-----	-----	4966

Enrollment in Short Courses of from two to seven days; Rural Women, 543; Boys' and Girls' Club, 266; Volunteer Firemen, 90; Canners, 110; Florists, 225; Nurserymen, 88; Garden School, 181. Practice School in the Summer Session, 38.

GENERAL INDEX

GENERAL INDEX